WEST Search History

DATE: Wednesday, May 22, 2002

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L6	L4 with3 hair	0	L6
L5	L4 same hair	79	L5
L4	Math$ or Hath$	108854	L4
L3	aton$ and hair	50	L3
L2	atonal assoc$	1	L2
L1	Math1 or Hath1	3	L1

END OF SEARCH HISTORY

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NEWS 6 Mar 08 Gene Names now available in BIOSIS
NEWS 7 Mar 22 TOXLIT no longer available
NEWS 8 Mar 22 TRCTHERMO no longer available
NEWS 9 Mar 28 US Provisional Priorities searched with P in CA/CAplus and USPATFULL
NEWS 10 Mar 28 LIPINSKI/CALC added for property searching in REGISTRY
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.
NEWS 12 Apr 08 "Ask CAS" for self-help around the clock
NEWS 13 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 14 Apr 09 ZDB will be removed from STN
NEWS 15 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 16 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 17 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 18 Apr 22 Federal Research in Progress (FEDRIP) now available

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
NEWS HOURS STN Operating Hours Plus Help Desk Availability
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NEWS LOGIN Welcome Banner and News Items
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NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 14:52:46 ON 29 MAY 2002

=> FIL BIOSIS MEDLINE EMBASE

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FULL ESTIMATED COST		0.21	0.21

FILE 'BIOSIS' ENTERED AT 14:53:04 ON 29 MAY 2002
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=> s hair? (3a) grow?
L1 7689 HAIR? (3A) GROW?

=> s l1 and review
L2 413 L1 AND REVIEW

=> s l2 and py>1995
L3 237 L2 AND PY>1995

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 196 DUP REM L3 (41 DUPLICATES REMOVED)

=> d bib abs 1-10

L4 ANSWER 1 OF 196 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2002159738 EMBASE
TI Studies on mass production of transformed Panax ginseng hairy roots in bioreactor.
AU Jeong G.-T.; Park D.-H.; Hwang B.; Park K.; Kim S.-W.; Woo J.-C.
CS D.-H. Park, Faculty of Chemical Engineering, Inst. of Bioindustrial Technology, Chonnam National University, Kwangju 500-757, Korea, Republic of. dhpark@chonnam.ac.kr
SO Applied Biochemistry and Biotechnology - Part A Enzyme Engineering and Biotechnology, (2002) 98-100/- (1115-1127).
Refs: 21
ISSN: 0273-2289 CODEN: ABIBDL
CY United States
DT Journal; Conference Article

FS 027 Biophysics, Bioengineering and Medical Instrumentation
029 Clinical Biochemistry
LA English
SL English
AB The growth properties of Panax ginseng hairy roots transformed by Agrobacterium rhizogenes were compared between flask and aerated column or stirred bioreactor. In flask cultures, sucrose, initially 30 g/L, was nearly exhausted after 45 d of culture. The pH of the medium dropped from 5.5 to 4.96 after 10 d, but afterward it gradually increased to 6.4. After 45 d, hairy roots grew about 16-folds. The ***growth*** rate of ***hairy*** roots in air-bubble column or stirred bioreactor cultures was 1.13 (1.11) to 1.23 (1.20) g fresh wt (dry wt)/(g of cells.ovrhdot.d), respectively. For both bioreactors, growth was about three times as high as in the flask cultivation.

L4 ANSWER 2 OF 196 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1
AN 2002:244960 BIOSIS
DN PREV200200244960
TI Ovarian mucinous cystadenocarcinoma with virilization.
AU Nezhat, Farr (1); Slomovitz, Brian M.; Saiz, Antonio D.; Cohen, Carmel J.
CS (1) Department of Gynecology and Obstetrics, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY, 10029 USA
SO Gynecologic Oncology, (***March, 2002***) Vol. 84, No. 3, pp. 468-472. http://www.academicpress.com/gyn. print.
ISSN: 0090-8258.
DT Article
LA English
AB Background. Ovarian neoplasms, other than sex cord-stromal tumors, are rare causes of hyperandrogenism. Only two cases of primary mucinous carcinomas associated with virilization have been reported. Case. A 50-year-old female was referred to our clinic with a large pelvic mass. On examination she had significant facial hirsutism, clitoromegaly, and male pattern pubic ***hair*** ***growth*** . Serum levels of testosterone and dihydroepiandrosterone sulfate were elevated. A 30-cm, multilocular, solid and cystic, left ovarian mass was resected. Histology revealed moderately to poorly differentiated mucinous cystadenocarcinoma. The ovarian stroma contained florid proliferation of luteinized cells. The right ovary showed cortical stromal hyperplasia. Abnormal hormone values normalized 10 days postoperatively. Conclusion. We report a rare case of mucinous cystadenocarcinoma with virilization, ***review*** the literature, and discuss the mechanisms of hormone production by these tumors.

L4 ANSWER 3 OF 196 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
2
AN 2002:309072 BIOSIS
DN PREV200200309072
TI Craniosynostosis, telecanthus, scalp hair abnormalities, and sensorineural deafness in two sibs.
AU Megarbane, Andre (1); Hersh, Joseph H.; Chouery, Eliane; Fabre, Michel
CS (1) Unite de Genetique Medicale, Faculte de Medecine, Universite Saint-Joseph, 42, Rue de Grenelle, 75007, Paris: megarban@dm.net.lb France
SO American Journal of Medical Genetics, (***May 15, 2002***) Vol. 109, No. 4, pp. 323-327. http://www.interscience.wiley.com/jpages/0148-7299/. print.
ISSN: 0148-7299.
DT Article
LA English
AB A sister and a brother with anomalous skull configuration, facial abnormalities, abnormal scalp ***hair*** ***growth*** , sensorineural hearing loss and, in the boy, proven craniosynostosis, severe mental retardation, and autism were reported in 1986 in an abstract by Hersh et al. We reexamined this family and here ***review*** the literature focusing on the major clinical findings, and suggest that their clinical manifestations may represent a previously unreported syndrome.

L4 ANSWER 4 OF 196 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2002070355 EMBASE
TI Molecular mechanisms regulating hair follicle development.
AU Millar S.E.
CS Dr. S.E. Millar, M8D Stellar-Chance Laboratories, 422 Curie Boulevard, Philadelphia, PA 19104-6100, United States. millars@mail.med.upenn.edu
SO Journal of Investigative Dermatology, (2002) 118/2 (216-225).
Refs: 128
ISSN: 0022-202X CODEN: JIDEAE
CY United States
DT Journal; General Review
FS 013 Dermatology and Venereology
021 Developmental Biology and Teratology
LA English
SL English
AB Clinical conditions causing hair loss, such as androgenetic alopecia, alopecia areata, and scarring alopecia, can be psychologically devastating to individuals and are the target of a multimillion dollar pharmaceutical industry. The importance of the hair follicle in skin biology, however, does not rest solely with its ability to produce hair. Hair follicles are self-renewing and contain reservoirs of multipotent stem cells that are capable of regenerating the epidermis and are thought to be utilized in wound healing. Hair follicles are also the sites of origin of many neoplasias, including some basal cell carcinomas and pilomatricoma. These diseases result from inappropriate activation of signaling pathways that regulate hair follicle morphogenesis. Identification of the signaling molecules and pathways operating in developing and postnatal, cycling, hair follicles is therefore vital to our understanding of pathogenic states in the skin and may ultimately permit the development of novel therapies for skin tumors as well as for hair loss disease. The purpose of this ***review*** is to summarize recent progress in our understanding of the molecular mechanisms regulating hair follicle formation, and to discuss ways in which this information may eventually be utilized in the clinic.

L4 ANSWER 5 OF 196 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2002165119 EMBASE
TI Combination treatment of osteoporosis: A clinical ***review*** .
AU Crandall C.
CS Dr. C. Crandall, UCLA School of Medicine, UCLA Natl. Ctr. Excel. Womens Health, Iris Cantor-UCLA Women's Health Ctr., 100 UCLA Medical Plaza, Los Angeles, CA 90095-7023, United States
SO Journal of Women's Health and Gender-Based Medicine, (2002) 11/3 (211-224).
Refs: 32
ISSN: 1524-6094 CODEN: JWHMFP
CY United States
DT Journal; General Review
FS 010 Obstetrics and Gynecology
030 Pharmacology
033 Orthopedic Surgery
037 Drug Literature Index
038 Adverse Reactions Titles
LA English
SL English
AB Objective: Because of the limited efficacy of available agents and to limit toxicity, there is considerable interest in combination pharmacotherapy for osteoporosis. Methods: A search was performed for randomized controlled trials in MEDLINE (1966-present) using the keywords osteoporosis treatment and combination. Results: Twenty-four randomized controlled trials evaluated osteoporosis medications in combination. Study duration ranged from 1 to 4 years. No serious adverse events were definitively attributable to study drugs. Fracture reduction outcome is not shown for any combination regimen. The literature was mixed regarding bone density augmentation. Combinations of nandrolone decanoate plus calcitonin, calcitonin plus growth hormone (GH), or pamidronate plus GH may be contradictory or detrimental to bone mineral density (BMD). For postmenopausal osteoporosis or osteopenia, four combinations appear to increase hip and lumbar BMD: 10 mg alendronate with 0.625 mg conjugated equine estrogens (CEE), cyclic etidronate with 0.625mg CEE, 10 mg alendronate with 2 mg estradiol (E(2)), and tibolone with fluoride. For steroid-related osteoporosis, intermittent etidronate with fluoride increases lumbar BMD. Conclusions: The few trials including Food and Drug Administration (FDA)-approved medications suggest that 10 mg/day alendronate with estrogen (equivalent of 0.625 mg CEE daily) can increase BMD moreso than each medication given singly in postmenopausal osteoporotic women. Estrogen dose and type must be controlled in future trials. Long-term safety data are lacking. The utility of these combinations rests on whether bone density changes will translate into decreased fracture rates.

L4 ANSWER 6 OF 196 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2002142482 EMBASE
TI Hoxc12 expression pattern in developing and cycling murine hair follicles.
AU Shang L.; Pruett N.D.; Awgulewitsch A.
CS A. Awgulewitsch, Department of Medicine, Medical University of South Carolina, 96 Jonathan Lucas Street-CSB, Charleston, SC 29425, United States. awgulewa@musc.edu
SO Mechanisms of Development, (2002) 113/2 (207-210).
Refs: 14
ISSN: 0925-4773 CODEN: MEDVE6
PUI S 0925-4773(02)00022-9
CY Ireland
DT Journal; Article
FS 021 Developmental Biology and Teratology
029 Clinical Biochemistry
LA English
SL English
AB We examine the Hoxc12 RNA expression pattern during both hair follicle morphogenesis and cycling in direct comparison to its only upstream neighbor, Hoxc13. Expression of both genes is restricted to the epidermal part of the follicle excluding the outer root sheath and interfollicular epidermis in a distinct stage-dependent and cyclical manner. During the progressive growth phase (anagen) of developing and cycling follicles, the distinct proximo-distal expression domain of Hoxc12 overlaps only proximally, at the upper-most region of the bulb, with the more proximally restricted Hoxc13 domain. This arrangement of the expression domains of the two genes along the proximal-toward-distal axis of increasing follicular differentiation correlates with the sequential expression of first Hoxc13 and then Hoxc12. This indicates a reversal of the typical temporal colinearity of Hox gene activation otherwise observed along the anterior-posterior morphogenetic axis of the embryo (***review*** : Cell 78 (1994) 191). .COPYRGT. 2002 Elsevier Science Ireland Ltd. All rights reserved.

L4 ANSWER 7 OF 196 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2002135211 EMBASE

TI ***Hair*** ***growth*** effect of minoxidil.
AU Otomo S.
CS S. Otomo, Pharmacological Evaluation Lab., Taisho Pharmaceutical Co., Ltd., 403, Yoshino-cho 1-chome, Saitama-shi, Saitama 330-8530, Japan
SO Folia Pharmacologica Japonica, (2002) 119/3 (167-174).
Refs: 59
ISSN: 0015-5691 CODEN: NYKZAU
CY Japan
DT Journal; General Review
FS 013 Dermatology and Venereology
030 Pharmacology
037 Drug Literature Index
LA Japanese
SL English; Japanese
AB The length and size of hair are depend on the anagen term in its hair cycle. It has been reported that the some cell growth factors, such as VEGF, FGF-5S, IGF-1 and KGF, induce the proliferation of cells in the matrix, dermal papilla and dermal papillary vascular system and increase the amount of extra cellular matrix in dermal papilla and then maintain follicles in the anagen phase. On the other hand, negative factors, like FGF-5, thrombospondin, or still unknown ones, terminate the anagen phase. If the negative factors become dominant against cell proliferation factors according to fulfilling some time set by the biological clock for hair follicles, TGF .beta. induced in the matrix tissues evokes apoptosis of matrix cells and shifts the follicles from anagen to catagen. Androgenetic alopecia is caused by miniaturizing of hair follicles located in the frontal or crown part of scalp and are hereditarily more sensitive to androgen. In their hair cycles, the androgen shortens the anagen phase of follicles and shifts them to the catagen phase earlier than usual. The mode of action of ***hair*** ***growth*** effect of minoxidil is not completely elucidated, but the most plausible explanation proposed here is that minoxidil works as a sulfonylurea receptor (SUR) activator and prolongs the anagen phase of hair follicles in the following manner: minoxidil (1) induces cell growth factors such as VEGF, HGF, IGF-1 and potentiates HGF and IGF-1 actions by the activation of uncoupled SUR on the plasma membrane of dermal papilla cells, (2) inhibits of TGF .beta. induced apoptosis of hair matrix cells by opening the Kir 6.0 channel pore coupled with SUR on the mitochondrial inner membrane, and (3) dilates hair follicle arteries and increases blood flow in dermal papilla by opening the Kir 6.0 channel pore coupled with SUR on the plasma membrane of vascular smooth muscle cells.

L4 ANSWER 8 OF 196 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2002090862 EMBASE
TI Androgen replacement therapy with dehydroepiandrosterone for androgen insufficiency and female sexual dysfunction: Androgen and questionnaire results.
AU Munarriz R.; Talakoub L.; Flaherty E.; Gioia M.; Hoag L.; Kim N.N.; Traish A.; Goldstein I.; Guay A.; Spark R.
CS R. Munarriz, Department of Urology, 720 Harrison Ave., Boston, MA 02118, United States
SO Journal of Sex and Marital Therapy, (2002) 28/SUPPL. 1 (165-173).
Refs: 7
ISSN: 0092-623X CODEN: JSMTB5
CY United States
DT Journal; Article
FS 003 Endocrinology
010 Obstetrics and Gynecology
017 Public Health, Social Medicine and Epidemiology
037 Drug Literature Index
038 Adverse Reactions Titles
LA English
SL English
AB During our evaluations of women with sexual dysfunction, we have seen many with low interest, arousal, and orgasmic capabilities with associated personal distress and diminished genital sensation and blood flow following sexual stimulation. Laboratory evaluation of these women has revealed normal estrogen but androgen values that were either below or in the lower quartile of the physiologic range. Androgen insufficiency and sexual dysfunction have been the working diagnoses in these women. Although many treatment options currently are available for this syndrome, there are limited data concerning safety and efficacy. The aim of this retrospective, Institutional ***Review*** Board (IRB)-approved, single-institution study was to report on the androgen and questionnaire results from a series of patients who underwent androgen replacement therapy with dehydroepiandrosterone for treatment of androgen insufficiency and sexual dysfunction. This study revealed that there was a significant decrease in sexual distress, a significant increase in sexual function in the domains of desire, arousal, lubrication, satisfaction, and orgasm, and a normalization to values within the physiologic range in the following androgens measured: total testosterone, free or bioavilable testosterone, DHEA, DHEA-S, and androstenedione. Side effects included increased facial hair (11%), weight gain (7%), acne (5%), temporary breast tenderness (1%), loss of head hair (1%) and skin rash (1%). Preliminary results suggest that androgen replacement therapy with dehydroepiandrosterone is a safe and effective treatment for androgen insufficiency and female sexual dysfunction. However, further research is needed, including prospective, multi-institution, placebo-controlled double-blind studies.

L4 ANSWER 9 OF 196 MEDLINE
AN 2002080814 MEDLINE
DN 21666105 PubMed ID: 11807473
TI Defining pseudofolliculitis barbae in 2001: a ***review*** of the literature and current trends.
AU Perry Patricia K; Cook-Bolden Fran E; Rahman Zakia; Jones Elena; Taylor Susan C
CS Skin of Color Center, Department of Dermatology, St. Luke's-Roosevelt Hospital, New York, NY 10025, USA.
SO JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY, ***(2002 Feb)*** 46 (2
Suppl Understanding) S113-9. Ref: 29
Journal code: 7907132. ISSN: 0190-9622.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200202
ED Entered STN: 20020128
Last Updated on STN: 20020409
Entered Medline: 20020226
AB Pseudofolliculitis barbae (PFB) is a chronic inflammatory and potentially disfiguring condition most often seen in men and women of African American and Hispanic origin who have tightly curled hair and who shave or tweeze hairs frequently. The etiology is multifactorial. The shape of the hair follicle, hair cuticle, and the direction of ***hair*** ***growth*** each play a role in the inflammatory response once the hair is shaven or plucked and left to grow. This reaction often produces painful, pruritic, and sometimes hyperpigmented papules in the beard distribution. The result is an unappealing cosmetic appearance, often with emotionally distressing consequences for affected individuals. The diagnosis is made clinically. Currently, prevention and early intervention are the mainstays of therapy. Many treatment options are available; however, none has been completely curative. In this ***review*** , the history, incidence, pathogenesis, clinical manifestations, dermatopathology, prevention, and treatment of PFB, including the most current surgical options, will be discussed. In addition, new data on patients with PFB from the Skin of Color Center will be presented.

L4 ANSWER 10 OF 196 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2002119962 EMBASE
TI Laser hair removal: Guidelines for management.
AU Se H.L.
CS Dr. H.L. Se, Burns and Plastic Surgery Department, Whiston Hospital, Prescot, Merseyside L35 5DR, United Kingdom. sehwangliew@hotmail.com
SO American Journal of Clinical Dermatology, (2002) 3/2 (107-115).
Refs: 61
ISSN: 1175-0561 CODEN: AJCDCI
CY New Zealand
DT Journal; General Review
FS 009 Surgery
013 Dermatology and Venereology
LA English
SL English
AB Laser-assisted hair removal is the most efficient method of long-term hair removal currently available. Several hair removal systems have been shown to be effective in this setting: ruby laser (694nm), alexandrite laser (755nm), diode laser (800nm), intense pulsed light source (590 to 1200nm) and the neodymium:yttrium-aluminium-garnet (Nd:YAG) laser (1064nm), with or without the application of carbon suspension. The parameters used with each laser system vary considerably. All these lasers work on the principle of selective photothermolysis, with the melanin in the hair follicles as the chromophobe. Regardless of the type of laser used multiple treatments are necessary to achieve satisfactory results. Hair clearance, after repeated treatments, of 30 to 50% is generally reported 6 months after the last treatment. Patients with dark colored skin (Fitzpatrick IV and V) can be treated effectively with comparable morbidity to those with lighter colored skin. Although there is no obvious advantage of one laser system over another in terms of treatment outcome (except the Nd:YAG laser, which is found to be less efficacious, but more suited to patients with darker colored skin), laser parameters may be important when choosing the ideal laser for a patient. Adverse effects reported after laser-assisted hair removal include erythema and perifollicular edema, which are common, and crusting and vesiculation of treatment site, hypopigmentation and hyperpigmentation (depending on skin color and other factors). Most complications are generally temporary. The occurrence of hypopigmentation after laser irradiation is thought to be related to the suppression of melanogenesis in the epidermis (which is reversible), rather than the destruction of melanocytes. Methods to reduce the incidence of adverse effects include lightening of the skin and sun avoidance prior to laser treatment, cooling of the skin during treatment, and sun avoidance and protection after treatment. Proper patient selection and tailoring of the fluence used to the patient's skin type remain the most important factors in efficacious and well tolerated laser treatment. While it is generally believed that hair follicles are more responsive to treatment while they are in the growing (anagen) phase, conflicting results have also been reported. There is also no consensus on the most favorable treatment sites.

=> d his

(FILE 'HOME' ENTERED AT 14:52:46 ON 29 MAY 2002)

FILE 'BIOSIS, MEDLINE, EMBASE' ENTERED AT 14:53:04 ON 29 MAY 2002
L1 7689 S HAIR? (3A) GROW?
L2 413 S L1 AND REVIEW
L3 237 S L2 AND PY>1995
L4 196 DUP REM L3 (41 DUPLICATES REMOVED)

=> s l1 and (inner ear or eyebrow? or eyelash? or scalp?)
L5 1173 L1 AND (INNER EAR OR EYEBROW? OR EYELASH? OR SCALP?)

=> s l1 and inner ear and eyebrow? and eyelash? and scalp?
L6 0 L1 AND INNER EAR AND EYEBROW? AND EYELASH? AND SCALP?

=> s l1 and eyebrow? and eyelash? and scalp?
L7 21 L1 AND EYEBROW? AND EYELASH? AND SCALP?

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 11 DUP REM L7 (10 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 11 ANSWERS - CONTINUE? Y/(N):y

L8 ANSWER 1 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1
AN 2000:429349 BIOSIS
DN PREV200000429349
TI An autosomal dominant form of hereditary hypotrichosis simplex maps to 18p11.32-p11.23 in an Italian family.
AU Baumer, Alessandra (1); Belli, Serena; Trueb, Ralph M.; Schinzel, Albert
CS (1) Institute of Medical Genetics, University of Zurich, Raemistr. 74, CH-8001, Zurich Switzerland
SO European Journal of Human Genetics, (June, 2000) Vol. 8, No. 6, pp. 443-448. print.
ISSN: 1018-4813.
DT Article
LA English
SL English
AB We report on a three-generation Italian family with dominant transmission of a form of hereditary hypotrichosis simplex (HHS). The nine affected adults presented with sparse, thin and short hair. Somewhat less sparse and longer hair was observed in the two affected young children in the third generation. Reduced ***hair*** ***growth*** affected the ***scalp*** and body, although normal ***eyelashes*** , ***eyebrows*** and growth of men's beards were observed. No associated abnormality was detected and the overall psychomotor development of the affected individuals was normal. A phenotypic variation was observed amongst the family members and is suggestive of a reduced penetrance of the trait or the effect of a modifying factor. After exclusion, in our family, of linkage to loci previously described in other forms of atrichia or hypotrichosis, we performed a genome-wide linkage analysis, which resulted in a positive lod score at 18p11.32-p11.23. We defined a critical region of about 35 cM flanked by markers D18S853 and D18S40. The highest two-point lod score was obtained with the microsatellite markers D18S1376, D18S53 and D18S453 (lod score of 3.31 at theta = 0.00). The 18p11.32-p11.23 locus represents the first chromosome region shown to be associated with hereditary hypotrichosis simplex.

L8 ANSWER 2 OF 11 MEDLINE DUPLICATE 2
AN 2000136840 MEDLINE
DN 20136840 PubMed ID: 10674375
TI The molecular basis of congenital atrichia in humans and mice: mutations in the hairless gene.
AU Ahmad W; Panteleyev A A; Christiano A M
CS Department of Dermatology, Columbia University, College of Physicians & Surgeons, New York, New York 10032, USA.
NC P30-44535
SO JOURNAL OF INVESTIGATIVE DERMATOLOGY. SYMPOSIUM PROCEEDINGS, (1999 Dec) 4 (3) 240-3. Ref: 34
Journal code: C0U; 9609059. ISSN: 1087-0024.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200003
ED Entered STN: 20000327
Last Updated on STN: 20000327
Entered Medline: 20000314
AB Congenital atrichia is a form of total alopecia inherited in an autosomal recessive pattern. In individuals affected with this form of hair loss, hairs are typically absent from the ***scalp*** , and patients are nearly completely devoid of ***eyebrows*** , ***eyelashes*** , axillary and pubic hair, following shedding of the natural hair shortly after birth. We have recently linked this disorder to the chromosomal region 8p12, and cloned the human hairless gene, which resides within this interval. We have identified several mutations in the hairless gene in atrichia families from around the world. In hairless mice, the hair matrix cells appear to undergo a premature and massive apoptosis, together with a concomitant decline in Bcl-2 expression, a loss of NCAM positivity, and a disconnection with the overlying epithelial sheath essential for the movement of the dermal papilla. As a consequence, the hair bulb and dermal papilla remain stranded in the dermis, and indispensible messages between the dermal papilla and stem cells in the bulge are not transmitted, so no further ***hair*** ***growth*** occurs. These findings suggest that the hairless gene product may play a crucial role in maintaining the delicate balance between cell proliferation, differentiation and apoptosis in the hair follicle, as well as in the interfollicular epidermis.

L8 ANSWER 3 OF 11 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 1999241630 EMBASE
TI Effect of IVIG on the hair regrowth in a common variable immune deficiency patient with alopecia universalis.
AU Boonyaleepun S.; Boonyaleepun C.; Schlactus J.L.
CS S. Boonyaleepun, Allergy Unit, Faculty of Medicine, Srinakharinwirot University, Bangkok, Thailand
SO Asian Pacific Journal of Allergy and Immunology, (1999) 17/1 (59-62). Refs: 12
ISSN: 0125-877X CODEN: APJIEA
CY Thailand
DT Journal; Article
FS 007 Pediatrics and Pediatric Surgery
013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LA English
SL English
AB Common variable immune deficiency (CVID) is associated with a variety of autoimmune diseases. Alopecia universalis (AU), believed to have an autoimmune basis, has been found in 1.6% of patients with CVID. Intravenous immunoglobulin (IVIG) therapy is used in various immunodeficiency disorders including CVID, and benefit has been shown in the therapy of autoimmune diseases. We report a patient with CVID and AU treated with IVIG who experienced significant hair regrowth. An 8-year-old girl with CVID and AU was treated with IVIG 400 mg/kg every 4 weeks. Since her second dose of IVIG, regrowth of ***eyelashes*** , ***eyebrows*** , body and ***scalp*** hair was observed in this patient. At present, about 1 year treat-ment of IVIG, significant hair regrowth is noted with 5-6 cm of ***scalp*** hair. We believe that IVIG may be beneficial in the treatment of AU, at least in patients with CVID.

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3
AN 1998:271399 BIOSIS
DN PREV199800271399
TI A gene for autosomal dominant hypohidrotic ectodermal dysplasia (EDA3) maps to chromosome 2q11-q13.
AU Ho, Lingling; Williams, Marc S.; Spritz, Richard A. (1)
CS (1) Lab. Genetics, Univ. Wis., 445 Henry Mall, Madison, WI 53706 USA
SO American Journal of Human Genetics, (May, 1998) Vol. 62, No. 5, pp. 1102-1106.
ISSN: 0002-9297.
DT Article
LA English
AB Autosomal dominant hypohidrotic ectodermal dysplasia (ADHED) is a disorder characterized by fine, slow- ***growing*** ***scalp*** and body ***hair*** , sparse ***eyebrows*** and ***eyelashes*** , decreased sweating, hypodontia, and nail anomalies. By genetic linkage analysis of a large ADHED kindred, we have mapped a gene for ADHED (EDA3) to the proximal long arm of chromosome 2 (q11-q13). Obligate recombinations localize EDA3 to an apprx 9-cM interval between D2S1321 and D2S308, with no apparent recombinations with markers D2S1343, D2S436, D2S293, D2S1894, D2S1784, D2S1890, D2S274, and CHLC.GAAT11C03.

L8 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
4
AN 1997:515067 BIOSIS
DN PREV199799814270
TI Autosomal dominant hypohidrotic ectodermal dysplasia in a large family.
AU Aswegan, Andrew L.; Josephson, Kevin D.; Mowbray, Rodney; Pauli, Richard M.; Spritz, Richard A.; Williams, Marc S. (1)
CS (1) Gundersen Lutheran Med. Center, 1836 South Ave., La Crosse, WI 54601 USA
SO American Journal of Medical Genetics, (1997) Vol. 72, No. 4, pp. 462-467.
ISSN: 0148-7299.
DT Article
LA English
AB We have studied an autosomal dominant hypohidrotic ectodermal dysplasia in 38 individuals over six generations in one family. Thirty-two affected individuals in four generations are still living. Questionnaire responses were received from 21 of the affected relatives and some of the individuals were examined by one of the authors. Smooth, dry, thin skin is seen in most affected individuals. Nearly all have fine, slow- ***growing*** ***scalp*** and body ***hair*** and all have sparse ***eyebrows*** and short ***eyelashes*** . Nearly all show a decrease in sweating, with some only sweating under the arms and/or on the palms and soles. All affected individuals lacked some deciduous teeth and some permanent teeth. Some teeth are abnormally shaped. Nail abnormalities are more variable and may occur more frequently with increasing age. No other abnormalities are seen in affected individuals in this family. We reviewed 40 autosomal dominant ectodermal dysplasia syndromes. This family

bears some resemblance to a family described by Jorgensen et al. (1987); however, it appears to represent a disorder that has not been described previously.

L8 ANSWER 6 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
5
AN 1991:114649 BIOSIS
DN BA91:62039
TI LOOSE ANAGEN HAIR SYNDROME.
AU LALEVIC-VASIC B; POLIC D; MILINKOVIC R
CS CLIN. DERMATO-VENEREOL., FAC. MED. DE BELGRADE, PASTEROVA 2, 11000
BELGRADE, YOUGOSLAVIE.
SO ANN DERMATOL VENEREOL, (1990) 117 (10), 701-707.
CODEN: ADVED7.
FS BA; OLD
LA French
AB In 1984, Zaun described a new type of pilary dysplasia characterized by easily pluckable hair. We were able to observe three patients with this anomaly, and this paper is an attempt at reviewing the subject on the basis of these new cases compared with those previously published. The major sign of the anomaly is that hairs can be pulled off in tufts easily and painlessly, and promptly grow again. In all cases reported so far the hair was blond or dark-blond: in some patients it is described as scintillating. The hair shaft is usually thin, but it may be of normal caliber. In the occipital region the hairs are entangled, dry and short. They are implanted wide apart (7, 12) or at normal intervals; area of alopecia are sometimes encountered. ***Hair*** ***growth*** may be slow, or of normal speed. The ***eyelashes*** and ***eyebrows*** , as well as other body hairs, are normal in all patients. The trichogram is exclusively composed of anagenic and dystrophic roots. Pathological examination by biopsy of the ***scalp*** is characteristic: transverse and oblique sections of the follicles show that the hairs are oval, triangular or trapezoidal in shape. Alterations of the inner epithelial sheath are also present, including keratinization and early decomposition, lack of complementation and fissures between the cuticle of the inner epithelial sheath and of the hair, in the keratogenic area. Our fingings were consistent in this respect with those found in the literature. Reduction in caliber of the follicle has sometimes been reported. Under polarized light, we discovered three types of lesions which were either successive or combined wtih normal segments of same hair shaft: a speckled appearance, totally different from trichothiodystrophy, polychromia in mosaic and polychromia in two parallel bands. Scanning electron microscopy gives characteristic images: longitudinal grooves parallel to the axis of the hair, and tendency to triangulation; we also found evidence of premature "weathering of the hair". At transmission electron microscopy of the hair shaft, the ultrastructure of cuticular and cortical cells seem to be normal. Concerning the differential diagnosis, we suggest the following diseases: Braun-Falco's anagen effluvium, uncombable hair syndrom, Marie Unna's hypotrichosis, progeria and DEF syndrom. As regards the pathogenesis of the anomaly, it has been suggested that early keratinization of the inner epithelial sheath results in insufficient anchoring of the hair through the cuticular cells of the inner epithelial sheath and the hair shaft. Spontaneous involution of the anomaly is partial but probable. Treatment is unnecessary and cannot be useful.

L8 ANSWER 7 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1989:316518 BIOSIS
DN BA88:30248
TI ALLERGIC AND IRRITANT CONTACT DERMATITIS COMPARED IN THE TREATMENT OF
ALOPECIA TOTALIS AND UNIVERSALIS A COMPARISON OF THE VALUE OF TOPICAL
DIPHENCYPRONE AND TRETINOIN GEL.
AU ASHWORTH J; TUYP E; MACKIE R M
CS DEP. DERMATOL., CHARING CROSS HOSP., FULHAM PALACE ROAD, LONDON W6 8RF,
UK.
SO BR J DERMATOL, (1989) 120 (3), 397-402.
CODEN: BJDEAZ. ISSN: 0007-0963.
FS BA; OLD
LA English
AB Diphencyprone is a potent topical sensitizer, but is non-mutagenic in the Ames test (unlike dinitroclorobenzene) and remains relatively stable in solution (unlike squaric acid dibutyl ester). Seventeen patients with total loss of ***scalp*** hair (eight alopecia totalis, nine alopecia universalis) were treated by maintaining on one sie of the ***scalp*** in allergic contact dermatitis induced by 2,3 diphenylcyclopropenone-1 ('diphencyprone'), and on the other side an irritant contant dermatitis using tretinoin gel (Retin A). After 20 weeks, treatment wiht tretinoin was stopped and diphencyprone was applied bilaterally for a further 10 weeks. Statisfactory regrowth of terminal hair on the ***scalp*** was achieved in only one patient. ***Eyebrow*** , ***eyelash*** and beard regrowth was achieved in one individual whilst in another, moderate, but not cosmetically satisfactory, ***scalp*** regrowth took place. In no patient did regrowth take place at trentinoin treated sites until after diphencyprone was substituted.

L8 ANSWER 8 OF 11 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 85242319 EMBASE
DN 1985242319
TI Ocular anomalies in Coffin-Siris syndrome.
AU Pallotta R.
CS Pediatric Clinic of the University, Chieti, Italy
SO Ophthalmic Paediatrics and Genetics, (1985) 6/1-2 (109-112).
CODEN: OPGEDY
CY Netherlands
DT Journal
FS 022 Human Genetics
012 Ophthalmology
007 Pediatrics and Pediatric Surgery
LA English
AB The Coffin-Siris syndrome has been rather recently defined as such and only 20 cases have been reported up to the present. The male/female ratio is 1:3. The main characteristics are the presence or hypoplasia of the nails and terminal phalanges (especially of the fifth fingers and toes), associated with general hirsutism with tendency to have sparse ***scalp*** ***hair*** , retardation of postnatal ***growth*** , hypotonia, lax joints and mental deficiency, which often is severe. Additional anomalies are: microcephaly, coarse facies, ***eyebrows*** / ***eyelashes*** hypertrichosis, congenital heart disease, retarded bone age, feeding difficulties and recurrent respiratory infections. The growh is linear, but consistently below the third percentile. The etiology of this syndrome is unknown.

L8 ANSWER 9 OF 11 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 84039321 EMBASE
DN 1984039321
TI Acquired progressive kinking of the hair.
AU English J.S.C.; Mortimer P.S.
CS Department of Dermatology, Wycombe General Hospital, High Wycombe, Bucks
HP11 2TT, United Kingdom
SO Clinical and Experimental Dermatology, (1984) 9/1 (102-104).
CODEN: CEDEDE
CY United Kingdom
DT Journal
FS 013 Dermatology and Venereology
LA English
AB Acquired progressive kinking of the hair was first described in 1932. There have been three cases reported in the literature. A typical example is described and the differences from woolly hair naevus are emphasized. A patient presented at the age of 19 with a 2-year history of his hair becoming progressively more dark and wiry over the frontal, temporal and vertex regions. The patients likened the appearance to pubic ***hair*** ***growing*** on his ***scalp*** . More recently the hair had become thinner and mild dandruff and itching had been noticed in affected areas. Since the onset of symptoms, the hair appeared to have stopped ***growing*** so that ***haircuts*** were rarely needed. There was no family history of ***scalp*** disorders and in particular, no male pattern baldness. General health was good and no oral medicines had been taken; nor was there any history of perms or other hair treatments have been used. Examination revealed the only abnormality to be coarse, dark, wiry hair in the frontal, temporal and vertex regions and close to the post-auricular hair margin. Elsewhere the hair was only minimally curly although there was no clear demarcation between affected and non-affected areas. The ***scalp*** was healthy and ***eyebrows*** , ***eyelashes*** and secondary sexual hair were normal.

L8 ANSWER 10 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
6
AN 1982:276388 BIOSIS
DN BA74:48868
TI HAIR CHANGES DUE TO ZINC DEFICIENCY IN A CASE OF SUCROSE MAL ABSORPTION.
AU WEISMANN K; HAGDRUP H K
CS DEP. DERMATOL., UNIV. COPENHAGEN, RIGSHOSP., COPENHAGEN, DENMARK.
SO ACTA DERMATO-VENEREOL, (1981) 61 (5), 444-447.
CODEN: ADVEA4. ISSN: 0001-5555.
FS BA; OLD
LA English
AB A 7 yr old girl suffering from chronic diarrhea due to sucrase deficiency was referred because of poor ***hair*** ***growth*** . Her ***scalp*** ***hair*** had a poor, colorless appearance and was much thinned in the occipital region. Her skin was dry, but otherwise normal. P(plasma)-Zn was low (7.9 .mu.mol/l), whereas P-albumin was normal. Oral Zn therapy, 40 mg daily, had a marked beneficial effect on her ***scalp*** hair, ***eyebrows*** and ***eyelashes*** , which became thicker and pigmented. Beau lines appeared on thumb-nails and 4th left finger-nail. A rise in P-Zn and S(serum)-alkaline phosphatase levels was observed during the Zn supplementation. Microscopic examination of her poor ***scalp*** hair, using polarized light, revealed well-defined abnormalities of the hair shafts, as reported by others in a case of acrodermatitis enteropathica: a marked individual variation in diameter, narrowing often associated with waving or sharp bending and broken ends, striation with a tendency to trichonodosis. Such changes were absent in the pigmented hair appearing after the start of Zn therapy.

L8 ANSWER 11 OF 11 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 76000970 EMBASE
DN 1976000970
TI Acrodermatitis enteropathica: A zinc deficiency syndrome? (Norwegian).

AU Krogh H.K.; Syversen T.
CS Hudavd., Haukeland Sykeh., Bergen, Norway
SO Tidsskrift for den Norske Laegeforening, (1975) 95/3 (152-155+159).
CODEN: TNLAAH
DT Journal
FS 037 Drug Literature Index
013 Dermatology and Venereology
006 Internal Medicine
005 General Pathology and Pathological Anatomy
LA Norwegian
AB Since 1955, a sister and brother, aged 22 and 21 yr, suffering from acrodermatitis enteropathica have been treated with different quinoline preparations without full control of their disease. In January, 1974, chlorquinaldol (2000 mg/daily) was replaced by zinc sulphate given as effervescent tablets (Solvezink). The new treatment gave prompt relief from all symptoms of the disorder. Gradually, there was an abundant ***growth*** of ***hair*** both on the ***scalp*** , axillae and pubes, and the new hair showed increased pigmentation. For the first time in their lives, normal ***eyelashes*** and ***eyebrows*** have developed and the patients have never felt better. They are now being treated, with excellent results, using only one tablet Solvezink (45 mg Zn2+) taken daily on an empty stomach. Whether acrodermatitis enteropathica can reflect a human zinc deficiency disorder caused by defective intestinal absorption is discussed.

=> d his

(FILE 'HOME' ENTERED AT 14:52:46 ON 29 MAY 2002)

FILE 'BIOSIS, MEDLINE, EMBASE' ENTERED AT 14:53:04 ON 29 MAY 2002
L1 7689 S HAIR? (3A) GROW?
L2 413 S L1 AND REVIEW
L3 237 S L2 AND PY>1995
L4 196 DUP REM L3 (41 DUPLICATES REMOVED)
L5 1173 S L1 AND (INNER EAR OR EYEBROW? OR EYELASH? OR SCALP?)
L6 0 S L1 AND INNER EAR AND EYEBROW? AND EYELASH? AND SCALP?
L7 21 S L1 AND EYEBROW? AND EYELASH? AND SCALP?
L8 11 DUP REM L7 (10 DUPLICATES REMOVED)

=> s l1 and bald?
L9 420 L1 AND BALD?

=> s l9 and beard
L10 32 L9 AND BEARD

=> dup rem l10
PROCESSING COMPLETED FOR L10
L11 16 DUP REM L10 (16 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 16 ANSWERS - CONTINUE? Y/(N):y

L11 ANSWER 1 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1
AN 2002:99567 BIOSIS
DN PREV200200099567
TI Steroid sulfatase in the human hair follicle concentrates in the dermal papilla.
AU Hoffmann, Rolf (1); Rot, Antal; Niiyama, Shiro; Billich, Andreas
CS (1) Department of Dermatology, Philipp University, Deutschhausstrasse 9, 35033, Marburg: rolf.hoffmann@mailer.uni-marburg.de Germany
SO Journal of Investigative Dermatology, (December, 2001) Vol. 117, No. 6, pp. 1342-1348. http://www.blackwell-science.com/cgilib/jnlpage.asp?Journal=xjid&File=xjid. print.
ISSN: 0022-202X.
DT Article
LA English
AB 5alpha-dihydrotestosterone is known to play a crucial part in the regulation of ***hair*** ***growth*** and in the development of androgenetic alopecia. 5alpha-dihydrotestosterone is formed locally within the hair follicle from the systemic precursor testosterone by cutaneous steroid 5alpha-reductase. Moreover, adrenal steroids such as dehydroepiandrosterone are converted to 5alpha-dihydrotestosterone by isolated hair follicles, which may provide an additional source of intrafollicular 5alpha-dihydrotestosterone levels. Elevated urinary dehydroepiandrosterone and serum dehydroepiandrosterone sulfate have been reported to be present in ***balding*** young men. These reports suggest that dehydroepiandrosterone sulfate may act as an important endocrine factor in the development of androgenetic alopecia. Hence the question arises whether the dehydroepiandrosterone sulfate can be metabolized within the hair follicles to yield dehydroepiandrosterone by the microsomal enzyme steroid sulfatase, and where steroid sulfatase might be localized. We therefore performed immunostaining for steroid sulfatase on human scalp biopsies as well as analysis of steroid sulfatase enzyme activity in defined compartments of human ***beard*** and occipital hair follicles ex vivo. Using both methods steroid sulfatase was primarily detected in the dermal papilla. Steroid sulfatase activity was inhibited by estrone-3-O-sulfamate, a specific inhibitor of steroid sulfatase, in a concentration-dependent way. Furthermore, we show that dermal papillae are able to utilize dehydroepiandrosterone sulfate to produce 5alpha-dihydrotestosterone, which lends further support to the hypothesis that dehydroepiandrosterone sulfate contributes to androgenetic alopecia and that steroid sulfatase inhibitors could be novel drugs to treat androgen-dependent disorders of the hair follicle such as androgenetic alopecia or hirsutism.

L11 ANSWER 2 OF 16 MEDLINE DUPLICATE 2
AN 2001331767 MEDLINE
DN 21292781 PubMed ID: 11399537
TI Do androgens influence ***hair*** ***growth*** by altering the paracrine factors secreted by dermal papilla cells?.
AU Randall V A; Hibberts N A; Thornton M J; Merrick A E; Hamada K; Kato S; Jenner T J; de Oliveira I; Messenger A G
CS Department of Biomedical Sciences, University of Bradford, Bradford, BD7 1DP, UK.. v.a.randall@bradford.ac.uk
SO EUROPEAN JOURNAL OF DERMATOLOGY, (2001 Jul-Aug) 11 (4) 315-20. Ref: 61
Journal code: C4S; 9206420. ISSN: 1167-1122.
CY France
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200108
ED Entered STN: 20010903
Last Updated on STN: 20010903
Entered Medline: 20010830
AB Androgens regulate many aspects of human ***hair*** ***growth*** in both sexes. After puberty they transform tiny vellus follicles in many areas, e.g. the face, to terminal ones producing long, thick, pigmented hairs. In genetically predisposed individuals, androgens also cause the reverse transformation of terminal scalp follicles into vellus ones, causing ***balding*** . In the current hypothesis for androgen action, androgens control most follicular cells indirectly acting via the mesenchyme-derived dermal papilla which regulates many aspects of follicular activity. In this model androgens binding to androgen receptors in dermal papilla cells alter their production of regulatory molecules which influence other follicular components; these molecules may be soluble paracrine factors and/or extracellular matrix proteins. This hypothesis is supported by immunohistochemical localisation of androgen receptors in dermal papilla cell nuclei and the demonstrations that androgen receptor content and testosterone metabolism patterns of cultured dermal papilla cells from various body sites reflect ***hair*** ***growth*** in androgen-insensitivity syndromes. The next question is whether androgens alter the paracrine factors secreted by dermal papilla cells. Cultured dermal papilla cells do release soluble, proteinaceous factors into their media which stimulate the growth of keratinocytes and other dermal papilla cells. This mitogenic potential can cross species from humans to rodents. Importantly, testosterone in vitro stimulates the mitogenic potential of ***beard*** cells, but in contrast inhibits production by ***balding*** scalp cells reflecting their in vivo androgenic responses. Since androgens in vitro do alter the secretion of paracrine factors the current focus lies in identifying specific factors produced, e.g. IGF-I and stem cell factor (SCF), using ELISA and RT-PCR, and comparing their expression in cells from follicles with varying responses to androgens in vivo or under androgen stimulation in vitro. This should lead to greater understanding of androgen action and enable the development of better treatment for androgen-potentiated disorders.

L11 ANSWER 3 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3
AN 2000:337086 BIOSIS
DN PREV200000337086
TI Sex, kings and serial killers and other group-selected human traits.
AU Bowles, J. T. (1)
CS (1) 60 East Chestnut No. 395, Chicago, IL, 60611 USA
SO Medical Hypotheses, (June, 2000) Vol. 54, No. 6, pp. 864-894. print.
ISSN: 0306-9877.
DT General Review
LA English
SL English
AB (Note: This unorthodox paper contains the first argument for heart disease being a programmed age change and promoted by the dramatic, post age-40 increases in the hormones FSH and hCG seen in some individuals.) A recent issue of Science suggests that the evolutionary purpose of sex is unknown. Paradox: Surviving to adulthood implies a valuable gene combination which is destroyed by sexual recombination. This should be detrimental to offspring. Proposed: Sex is group-selected in prey to allow coalescence of beneficial, and disposal of detrimental, mutations in single individuals enabling rapid adaptation to novel predation. Group selection is a universal force driven by local inter-species (not intra-species) competition. Aging, metabolism, litter size, and fixed body size are directly linked. Sexual recombination and chromosomes destroy gene linkage and exist because mutations are usually detrimental, rarely positive, and occur in linked groups. In unevolving environments, sex is selected against and asexuality emerges. Periodic evolution of novel predators, like man, can explain the 'punctuated equilibria' fossil record. Genes inhibited by methylation or chromatin condensation, expressed at older ages in predation-minimized environments, allow for group selection. Stress increases mutation rates and beneficial mutation likelihood.

Females select bigger, brighter, louder, or stronger males that can survive predator attention. Size approximates age and thus predator encounters; male traits represent predation-survival potential. Human male traits include, ***balding*** , acne, ***beard*** -length, wrinkling, graying, nose/ear growth. Progeria accelerates development of most male traits. Domination of groups by single males allows rapid predation-defense evolution: adolescent males are expelled, brave the wild, and expel another group's male to mate. If expelled and dominant males are culled by predation, males reaching puberty first will reproduce. Hormonal acceleration of puberty accelerates aging/population turnover, induces smaller bodies, larger litters. With a fixed group biomass, more, smaller, stressed individuals with faster aging/turnover, increase beneficial mutation likelihood. 'Kin selection', where dominant families are supported by celibate relatives, allow the best group genes to survive famine. Dominant families gorge while others starve. Equal food sharing results in group extinction leading to group-evolved human traits of social hierarchy, greed, king/queen/God worship. Menstrual hormone cycling parallels aging. FSH and DHT promote ovarian, hair, acne, dental, and arterial follicle development causing ovulation, ***hair*** ***growth*** , pimples, dental caries, and atherosclerotic soft plaques. Soft plaques contain macrophages and LDL plug; upper plaque layers thin and rupture, releasing LDL plug, causing thrombosis. FSH withdrawal or LH/hCG increases trigger ovulation and thrombosis. Artery narrowing atherosclerotic hard plaques are stress-induced through cortisol-promoted necrotic calcification. LH/hCG-induced apoptosis promotes ovulation and aging-related somatic atrophy. Long-term estradiol stimulates, while progesterone suppresses, gonadotropin levels. Estradiol protects by inhibiting gonadotropin bioactivity and has extracellular antioxidant, but intranuclear free radical, effects. Female X-linked gene mosaicism conserves evolved aging systems. Maternal age factors for chromosomal trisomy suggest menopause prevents human parthenogenesis. Homosexuality and serial killing inhibit genetic contribution by individuals evolutionarily perceived as stressed. Smoking during pregnancy may induce homosexual offspring. Nitric oxide, a free radical, stimulates cGMP, but not cAMP. cGMP likely first evolved as an antioxidant defense to free radicals. Human aging syndromes might reflect human evolution progression. AS4 affects tissues evolved from plant ancestors, AS5a - from predators, AS5b-immune system, and AS6-sex tissues. AS4 is driven by senescent gene expression induction of necrosis, AS5a by caspase-induced apoptosis, and AS5b and AS6 by p53-mediated apoptosis. Learning the difference between necrosis and p53-mediated apoptosis should reveal the basic cause of carcinogenesis. Lipofuscin may represent nonfunctional mitochondria and also appears in progeria (AS4). Lipofuscin and/or mitochondria link the non-telomeric aging systems. Variations in universal DNA code suggest mitochondria were the first predators. Post-40 TSH/hCG increases suggest these hormones also drive aging systems. LH/hCG receptor stimulation increases COX-2 levels. Lifelong telomere shortening has no effect on mice until the fourth generation. Conclusion: Only by accepting group selection as an important evolutionary force can the remaining paradoxes of biology, including sex and aging, be resolved.

L11 ANSWER 4 OF 16 MEDLINE DUPLICATE 4
AN 2000385746 MEDLINE
DN 20307983 PubMed ID: 10846263
TI Current understanding of androgenetic alopecia. Part I: etiopathogenesis.
AU Hoffmann R; Happle R
CS Department of Dermatology, Philipp University, Deutschhausstr. 9, D-35033 Marburg, Germany.
SO EUROPEAN JOURNAL OF DERMATOLOGY, (2000 Jun) 10 (4) 319-27. Ref: 80
Journal code: C4S; 9206420. ISSN: 1167-1122.
CY France
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200008
ED Entered STN: 20000818
Last Updated on STN: 20000818
Entered Medline: 20000810
AB Androgenetic alopecia (AGA) is the most common type of hair loss in men and women. This continuous process results in a type of alopecia that follows a definite pattern in those individuals who are genetically predisposed. At present the predisposing genes are unknown but the relatively strong concordance of the degree of ***baldness*** in fathers and sons is not consistent with a simple Mendelian trait and a polygenic basis is therefore most likely. AGA can be defined as a DHT-dependent process with continuous miniaturization of sensitive HF. Today we do not understand the molecular steps involved in androgen-dependent ***beard*** ***growth*** versus androgen-dependent ***hair*** loss in AGA. However, recent experimental and clinical advances enable us to explain some pathogenetic steps leading to androgenetic hair loss. Among other steroidogenic isoenzymes such as 17b- and 3b- hydroxysteroid dehydrogenases, the type 2 5a-reductase within the dermal papilla plays a central role by the intrafollicular conversion of T to DHT.

L11 ANSWER 5 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:527483 BIOSIS
DN PREV200100527483
TI The hair follicle: A paradoxical androgen target organ.
AU Randall, Valerie A. (1); Hibberts, Nigel A.; Thornton, M. Julie; Hamada, Kazuto; Merrick, Alison E.; Kato, Shoji; Jenner, Tracey J.; De Oliveira, Isobel; Messenger, Andrew G.
CS (1) Department of Biomedical Sciences, University of Bradford, Bradford, BD7 1DP: v.a.randall@bradford.ac.uk UK
SO Hormone Research (Basel), (2000) Vol. 54, No. 5-6, pp. 243-250. print. ISSN: 0301-0163.
DT General Review
LA English
SL English
AB Androgens are the main regulator of normal human ***hair*** ***growth*** . After puberty, they promote transformation of vellus follicles, producing tiny, unpigmented hairs, to terminal ones, forming larger pigmented hairs, in many areas, e.g. the axilla. However, they have no apparent effect on the eyelashes, but can cause the opposite transformation on the scalp leading to the replacement of terminal hairs by vellus ones and the gradual onset of androgenetic alopecia. This paradox appears to be an unique hormonal effect. Hair follicles are mainly epithelial tissues, continuous with the epidermis, which project into the dermis. A mesenchyme-derived dermal papilla enclosed within the hair bulb at the base controls many aspects of follicle function. In the current hypothesis for androgen regulation, the dermal papilla is also considered the main site of androgen action with androgens from the blood binding to receptors in dermal papilla cells of androgen-sensitive follicles and causing an alteration of their production of paracrine factors for target cells e.g. keratinocytes. Studies of cultured dermal papilla cells from sites with different responses to androgens in vivo have confirmed the paradoxical responses. All dermal papilla cells from androgen-sensitive sites contain low capacity, high affinity androgen receptors. However, only some cells formed 5alpha-dihydrotestosterone, e.g. ***beard*** but not axillary cells, in line with ***hair*** ***growth*** in 5alpha-reductase deficiency. Incubation with androgens also stimulated the mitogenic capacity of ***beard*** cell media, but inhibited that produced by scalp cells. This suggests that the paradoxical differences are due to differential gene expression within hair follicles, presumably caused during embryogenesis.

L11 ANSWER 6 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1997:235216 BIOSIS
DN PREV199799534419
TI ***Balding*** scalp hair follicle dermal papilla cells produce less hepatocyte growth factor (HGF) than ***beard*** and non-***balding*** scalp cells and ***balding*** scalp dermal fibroblasts.
AU Hibberts, N. A. (1); Howell, A. (1); Messenger, A. G.; Randall, V. A. (1)
CS (1) Dep. Biomed. Sci., Univ. Bradford, Bradford UK
SO Journal of Investigative Dermatology, (1997) Vol. 108, No. 4, pp. 652. Meeting Info.: Annual Meeting of the Society for Investigative Dermatology Washington, D.C., USA April 23-27, 1997
ISSN: 0022-202X.
DT Conference; Abstract; Conference
LA English

L11 ANSWER 7 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1994:269158 BIOSIS
DN PREV199497282158
TI Androgens and human ***hair*** ***growth*** .
AU Randall, Valerie Anne
CS Dep. Biomed. Sci., Richmond Build., Univ. Bradford, Richmond Road, Bradford BD7 1DP UK
SO Clinical Endocrinology, (1994) Vol. 40, No. 4, pp. 439-457.
ISSN: 0300-0664.
DT General Review
LA English

L11 ANSWER 8 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
5
AN 1994:257491 BIOSIS
DN PREV199497270491
TI Androgen action in cultured dermal papilla cells from human hair follicles.
AU Randall, Valerie A. (1); Thornton, M. Julie; Hamada, Kazuto; Messenger, Andrew G.
CS (1) Dep. Biomed. Sci., Univ. Brad., Bradford, BD7 1DP UK
SO Skin Pharmacology, (1994) Vol. 7, No. 1-2, pp. 20-26.
ISSN: 1011-0283.
DT Article
LA English
AB Androgens are major regulators of human ***hair*** ***growth*** with paradoxically different effects on hair follicles depending on their body site. They stimulate terminal growth in many regions including the face, have no effect on eyelashes, but may cause inhibition and ***balding*** on the scalp in genetically disposed individuals. How this occurs is unknown. However, androgens may act on the hair follicle via the cells of the dermal papilla; these would then influence the other cells of the hair follicle by altering the production of regulatory substances such as growth factors and/or extracellular matrix components. Therefore, primary lines of dermal papilla cells have been established from androgen-sensitive hair follicles, such as ***beard*** , and control, relatively androgen-independent, nonbalding scalp cells and their

mechanism of androgen action has been compared. Isolated ***beard*** dermal papillae were larger than those from scalp follicles. Although dermal papilla cells did not respond to in vitro androgens by alterations in growth, androgen-dependent dermal papilla cells contained higher levels of specific, low capacity, high affinity androgen receptors than non-***balding*** scalp cells. The ability of the cells to metabolize testosterone to 5-alpha-dihydrotestosterone in culture also varied in parallel to that predicted from studies of ***hair*** ***growth*** in the 5-alpha-reductase deficiency syndrome. These results support the hypothesis that androgens act via the dermal papilla. They also show that dermal papilla cells retain differences in gene expression in culture which appear to correspond with their androgenic response in vivo. Further studies of such cells should help elucidate why ***bald*** men can grow beards!

L11 ANSWER 9 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1994:241301 BIOSIS
DN PREV199497254301
TI Testosterone stimulates ***beard*** but not non- ***balding*** scalp dermal papilla cells to produce factors which stimulate keratinocyte growth.
AU Hibberts, N. A. (1); Quick, J. R. (1); Messenger, A. G.; Randall, V. A. (1)
CS (1) Dep. Biomed. Sci., Univ. Bradford, Bradford BD7 1DP UK
SO Journal of Endocrinology, (1994) Vol. 140, No. SUPPL., pp. ABSTRACT OC26.
Meeting Info.: 13th Joint Meeting of the British Endocrine Societies Bournemouth, England, UK March 21-24, 1994
ISSN: 0022-0795.
DT Conference
LA English

L11 ANSWER 10 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 6
AN 1994:59620 BIOSIS
DN PREV199497072620
TI Differences in testosterone metabolism by ***beard*** and scalp hair follicle dermal papilla cells.
AU Thornton, M. J.; Laing, I.; Hamada, K.; Messenger, A. G.; Randall, V. A. (1)
CS (1) Dep. Biomed. Sci., Univ. Bradford, Bradford, West Yorks BD7 1DP UK
SO Clinical Endocrinology, (1993) Vol. 39, No. 6, pp. 633-639.
ISSN: 0300-0664.
DT Article
LA English
AB Objective: Androgens have paradoxically different effects on hair follicles depending on body site, stimulating ***beard*** growth while inducing regression in some areas of the scalp. The mesenchyme derived dermal papilla at the base of the hair follicle regulates many aspects of the growth of follicular epithelium, and is probably the site of androgen action. Since 5-alpha-dihydrotestosterone is considered to be the active intracellular androgen in many target tissues and is required for some androgen-mediated ***hair*** ***growth*** , such androgen-sensitive cells should contain 5-alpha-reductase. This study was designed to investigate whether cultured human dermal papilla cells contain 5-alpha-reductase and whether the metabolic capacity varies with the body site of the follicle in line with the clinical picture. Design: Testosterone metabolism in cultured dermal papilla cells from androgen sensitive ***beard*** follicles was compared with less androgen dependent non- ***balding*** scalp follicles. Primary cell cultures were established from follicles of 11 patients with normal ***hair*** ***growth*** . The cells were grown to confluence in 10-cm Petri dishes and incubated with 5 nM 3H-testosterone in serum-free medium for 2 hours. The cells and the culture medium were collected separately for individual analysis. Measurements: Unlabelled carrier and 14C-marker steroids were added to both the cell and medium extracts before separation by thin-layer chromatography. The individual steroid identities were confirmed by recrystallizing up to five times to a constant 3H/14C ratio. Results: Testosterone was taken up by both cell types; significant amounts of 5-alpha-dihydrotestosterone were recovered inside ***beard*** cells, but not in scalp cells, whereas androstenedione was identified in both. An unidentified compound was present intracellularly in both cell types, but was not present in the culture medium. 5-alpha-Dihydrotestosterone was present only in the culture medium of ***beard*** cells but androstenedione was present in a similar amount in the medium from both cell types. The presence of other steroids could not be confirmed in either the cell extracts or the culture medium. Conclusions: The production of 5-alpha-dihydrotestosterone by ***beard*** cells concurs with the poor ***beard*** growth in men with 5-alpha-reductase deficiency, supporting our hypothesis that androgens mediate their effects on the hair follicle via the mesenchyme-derived dermal papilla.

L11 ANSWER 11 OF 16 MEDLINE DUPLICATE 7
AN 93315881 MEDLINE
DN 93315881 PubMed ID: 8326143
TI Hormones and ***hair*** ***growth*** : variations in androgen receptor content of dermal papilla cells cultured from human and red deer (Cervus elaphus) hair follicles.
AU Randall V A; Thornton M J; Messenger A G; Hibberts N A; Loudon A S; Brinklow B R
CS Department of Biomedical Sciences, University of Bradford, U.K.
SO JOURNAL OF INVESTIGATIVE DERMATOLOGY, (1993 Jul) 101 (1 Suppl) 114S-120S.
Ref: 47
Journal code: IHZ; 0426720. ISSN: 0022-202X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199308
ED Entered STN: 19930820
Last Updated on STN: 19930820
Entered Medline: 19930811
AB Many hair follicles produce different types of hair in response to environmental changes or the mammals age, that are translated to the follicle by hormones. Androgens cause many changes, such as transforming vellus follicles producing insignificant hairs on the face to terminal ***beard*** ones at puberty or the reverse on the scalp. In male red deer the breeding season rise in androgens causes the annual production of a mane on the neck that is lost during the spring. Because the dermal papilla situated at the base of the hair follicle is important in determining the type of hair produced, androgens may act via the dermal papilla. Therefore, primary cell lines of dermal papilla cells from human and red deer follicles with different responses to androgens have been established. Specific saturable androgen receptors were present in all human papilla cells examined, with higher levels in cells from androgen-dependent follicles, e.g., ***beard*** than in control, non-***balding*** scalp cells. In preliminary investigations of red deer, androgen receptors were only present in cells derived from mane follicles and were undetectable in flank or spring neck follicles. These similar results from both species support the hypothesis that androgens are acting on hair follicles via the dermal papilla. They also suggest that dermal papilla cells are potentially useful models for investigating the mechanism of androgen action because cultured cells appear to retain differences that relate to the androgen responsiveness of their parent follicle. The red deer seems particularly interesting in view of the much shorter ***hair*** - ***growth*** cycle than human scalp or ***beard*** follicles.

L11 ANSWER 12 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 93011951 EMBASE
DN 1993011951
TI [Symmetrical circumscribed allotrichia (whisker hair)].
ALLOTRICHIA CIRCUMSCRIPTA SYMMETRICA (WHISKER HAIR).
AU Trueb R.M.
CS Dermatologische Klinik, Universitatsspital, Gloriastrasse 31,CH-8091 Zurich, Switzerland
SO Aktuelle Dermatologie, (1992) 18/11 (342-344).
ISSN: 0340-2541 CODEN: AKDEDY
CY Germany
DT Journal; Article
FS 013 Dermatology and Venereology
LA German
SL German; English
AB Symmetrical circumscribed allotrichia designates bilaterally acquired kinking of hair of the supraauricular and postauricular scalp margins of young men. It has been namend 'whisker hair' by barbers because of its proximity and similarity to ***beard*** hair. A relationship to androgenetic alopecia is assumed, and when the hair of the affected area has eventually progressed into a permanent telogen phase, in combination with senile alopecia, complete periauricular and occipital alopecia may ensue. Symmetrical circumscribed allotrichia is important to the dermatologist not only because it may herald severe male pattern ***baldness*** , but furthermore makes very poor donor hair for hair transplant surgery. The major differential diagnoses are woolly hair, pili torti, spunglass hair and damage due to hair cosmetic procedures. With advanced ***balding*** ophiasis and traumatic alopecia must also be considered.

L11 ANSWER 13 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 8
AN 1992:302498 BIOSIS
DN BA94:15648
TI CULTURED DERMAL PAPILLA CELLS FROM ANDROGEN-DEPENDENT HUMAN HAIR FOLLICLES
E.G. ***BEARD*** CONTAIN MORE ANDROGEN RECEPTORS THAN THOSE FROM NON-***BALDING*** AREAS OF SCALP.
AU RANDALL V A; THORNTON M J; MESSENGER A G
CS DEP. BIOMED. SCI., UNIV. BRADFORD, BRADFORD BD7 1DP, UK.
SO J ENDOCRINOL, (1992) 133 (1), 141-147.
CODEN: JOENAK. ISSN: 0022-0795.
FS BA; OLD
LA English
AB Androgens stimulate ***hair*** ***growth*** in many areas, e.g. the ***beard*** ; they also induce regression and ***balding*** on the scalp with increasing age in genetically disposed individuals. The cause(s) of this biological conundrum is unknown but age-related; androgen-potentiated changes also occur in the prostate. The mesenchyme-derived dermal papilla situated at the base of the hair follicle is though to play an important role in regulating the growth and

development of the follicular epithelium. Since androgens probably act on the hair follicle via the dermal papilla, cultures of dermal papilla cells from human hair follicles with differing responses to androgens in vivo have been established and their ability to bind androgens assessed. Receptor binding was assayed by saturaiton analysis (0.05-10 nmol/l) using the synthetic non-metablizable androgen, [3H]mibolerone. Shionogi 115 cells were also assayed as a positive control. Specific high-affinity low-capacity androgen receptors were identified in 12 dermal papilla primary cell lines with similar characteristics to established androgen receptors. Cells from androgen-sensitive follicles (***beard*** , scrotum and pubis) contained higher levels of androgen receptors than those derived from relatively androgen-receptors than those derived from relatively androgen-insensitive non- ***balding*** scalp follicles whether the receptor content was calculated in relation to cell number, protein or DNA content of the cells. These results support the hypothesis that androgens act on hair follicles via the dermal papilla in vivo and demonstrate that dermal papilla cells exhibit an altered phenotype in culture which depends on the body site from which they were derived. Cultured human dermal papilla cells should prove a useful model system for studies of the mechanism of androgen action, and further investigations may elucidate the paradox of why ***bald*** men can grow beards.

L11 ANSWER 14 OF 16 MEDLINE DUPLICATE 9
AN 92268619 MEDLINE
DN 92268619 PubMed ID: 1588130
TI Mechanism of androgen action in cultured dermal papilla cells derived from human hair follicles with varying responses to androgens in vivo.
AU Randall V A; Thornton M J; Hamada K; Messenger A G
CS Department of Biomedical Sciences, The University, Bradford, U.K.
SO JOURNAL OF INVESTIGATIVE DERMATOLOGY, (1992 Jun) 98 (6 Suppl) 86S-91S.
Ref: 47
Journal code: IHZ; 0426720. ISSN: 0022-202X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199206
ED Entered STN: 19920710
Last Updated on STN: 19920710
Entered Medline: 19920625
AB Androgens are major regulators of human ***hair*** ***growth*** , but their effects vary: many follicles are stimulated by androgens, e.g., ***beard*** ; some remain unaffected, e.g., eyelashes; whereas scalp follicles undergo regression and ***balding*** in genetically disposed individuals. Because the dermal papilla controls many aspects of the hair follicle, androgens may act via the dermal papilla, affecting the other follicular components indirectly. In this hypothesis androgens would alter dermal papilla cell production of regulatory substances, e.g., growth factors and/or extracellular matrix components. To test this theory the mechanism of androgen action has been compared in primary lines of dermal papilla cells cultured from androgen-dependent follicles and relatively androgen-independent non- ***balding*** scalp. Androgen receptor levels were assayed by saturation analysis (9-10 points; 0.05-10 nmol/l) using the synthetic androgen [3H]-mibolerone and specificity was confirmed by competition studies. Androgen metabolism was investigated both intracellularly and in the media after a 2-h incubation with 5 nM [3H]-testosterone. Carrier and [14C] steroids were added to the extracts before separation by thin-layer chromatography; steroid identity was confirmed by recrystallization. Dermal papilla cells from androgen-dependent follicles contained higher levels of specific, high-affinity, low-capacity androgen receptors than non- ***balding*** scalp cells. Testosterone metabolism also varied with ***beard*** , public and scalp cells containing testosterone and androstenedione intracellularly, but only ***beard*** cells producing 5 alpha-dihydrotestosterone, in line with the scanty ***beard*** growth found in 5 alpha-reductase deficiency. Elsewhere we have shown that cultured dermal papilla cells produce extracellular matrix components and mitogenic factors. These results all concur with our original hypothesis and suggest that further studies of such cells may elucidate the paradoxical effects of androgens on human hair follicles.

L11 ANSWER 15 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
10
AN 1991:409646 BIOSIS
DN BA92:76611
TI EFFECT OF ANDROGENS ON THE GROWTH OF CULTURED HUMAN DERMAL PAPILLA CELLS
DERIVED FROM ***BEARD*** AND SCALP HAIR FOLLICLES.
AU THORNTON M J; MESSENGER A G; ELLIOTT K; RANDALL V A
CS DEP. BIOMED. SCI., UNIV. BRADFORD, WEST YORKSHIRE, BD7 1DP, UK.
SO J INVEST DERMATOL, (1991) 97 (2), 345-348.
CODEN: JIDEAE. ISSN: 0022-202X.
FS BA; OLD
LA English
AB Androgens stimulate ***hair*** ***growth*** in some areas, e.g., ***beard*** , but may cause regression and ***baldness*** on the scalp. The mesenchyme-derived dermal papilla is believed to regulate many aspects of ***hair*** ***growth*** . It is probable that androgens exert their effect on ***hair*** ***growth*** via the dermal papilla. In this study the effect of androgens on the growth of cultured dermal papilla cells from ***beard*** and non- ***balding*** scalp was assessed. Dermal papilla cells from ***beard*** hair follicles and non- ***balding*** scalp were cultured in vitro in the presence and absence of different concentrations of testosterone or the synthetic, non-metabolizable androgen, mibolerone. Cell growth was reflected by the incorporation of 3H-thymidine. The presence of either androgen did not significantly alter DNA synthesis at any of the concentrations examined in either type of cell line. These results do not mean that dermal papilla cells do not respond to androgens in vitro, but that the measurement of cell growth is an inappropriate method of assessment. Androgens may well stimulate the synthesis of specific proteins that could influence the hair follicle.

L11 ANSWER 16 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1989:330244 BIOSIS
DN BR37:33016
TI ANDROGEN RECEPTORS IN CULTURED DERMAL PAPILLA CELLS AND DERMAL FIBROBLASTS
FROM SCALP ***BEARD*** AND SEXUAL SKIN.
AU RANDALL V A; THORNTON M J; ELLIOTT K; MESSENGER A G
CS DEP. BIOMEDICAL SCI., UNIV. BRADFORD, BRADFORD, UK.
SO JOINT MEETING OF THE SOCIETY FOR INVESTIGATIVE DERMATOLOGY, EUROPEAN
SOCIETY FOR DERMATOLOGIC RESEARCH, AND JAPANESE SOCIETY FOR INVESTIGATIVE
DERMATOLOGY, WASHINGTON, D.C., USA, APRIL 26-30, 1989. CLIN RES. (1989) 37
(2), 763A.
CODEN: CLREAS. ISSN: 0009-9279.
DT Conference
FS BR; OLD
LA English

=> d his

(FILE 'HOME' ENTERED AT 14:52:46 ON 29 MAY 2002)

FILE 'BIOSIS, MEDLINE, EMBASE' ENTERED AT 14:53:04 ON 29 MAY 2002
L1 7689 S HAIR? (3A) GROW?
L2 413 S L1 AND REVIEW
L3 237 S L2 AND PY>1995
L4 196 DUP REM L3 (41 DUPLICATES REMOVED)
L5 1173 S L1 AND (INNER EAR OR EYEBROW? OR EYELASH? OR SCALP?)
L6 0 S L1 AND INNER EAR AND EYEBROW? AND EYELASH? AND SCALP?
L7 21 S L1 AND EYEBROW? AND EYELASH? AND SCALP?
L8 11 DUP REM L7 (10 DUPLICATES REMOVED)
L9 420 S L1 AND BALD?
L10 32 S L9 AND BEARD
L11 16 DUP REM L10 (16 DUPLICATES REMOVED)

=> s l1 and inner ear
L12 31 L1 AND INNER EAR

=> s l12 and review
L13 2 L12 AND REVIEW

=> dup rem l13
PROCESSING COMPLETED FOR L13
L14 2 DUP REM L13 (0 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L14 ANSWER 1 OF 2 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 1998364680 EMBASE
TI Gene transfer in the ***inner*** ***ear*** .
AU Raphael Y.; Yagi M.
CS Dr. Y. Raphael, University Michigan Medical School, MSRB 3, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0648, United States
SO Current Opinion in Otolaryngology and Head and Neck Surgery, (1998) 6/5 (311-315).
Refs: 30
ISSN: 1068-9508 CODEN: COOSFD
CY United States
DT Journal; General Review
FS 011 Otorhinolaryngology
022 Human Genetics
037 Drug Literature Index
LA English
SL English
AB Delivering and expressing foreign genes can prevent or cure a variety of diseases for which no therapy presently exists. The ***inner*** ***ear*** is an attractive target for gene therapy for clinical and experimental purposes. Experiments using reporter genes demonstrated the feasibility for gene transfer into cochlear tissues. Herpes simplex virus, adenovirus, adeno-associated virus, and vaccinia virus were used as vectors to deliver these reporter genes. Gene therapy experiments demonstrated protective effects of several ***growth*** factors on

hair cells and spiral ganglion cells. The transgenes for BDNF, NT-3, and GDNF have been shown to have protective effects in the cochlea when overexpressed via one of these viral vectors. When vector technology allows for inducible and cell-specific gene expression and reduced immune response, gene therapy may become a safe and efficient therapeutic tool in the otology clinic.

L14 ANSWER 2 OF 2 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 1998364678 EMBASE
TI Influence of ***growth*** factors on ***hair*** cell and spiral ganglion neuron preservation and regeneration.
AU Miller A.L.; Yamasoba T.; Altschuler R.A.
CS A.L. Miller, Kresge Hearing Research Institute, University Michigan Medical School, 1301 East Ann Street, Ann Arbor, MI 48109-0506, United States
SO Current Opinion in Otolaryngology and Head and Neck Surgery, (1998) 6/5 (301-307).
Refs: 95
ISSN: 1068-9508 CODEN: COOSFD
CY United States
DT Journal; General Review
FS 005 General Pathology and Pathological Anatomy
008 Neurology and Neurosurgery
011 Otorhinolaryngology
029 Clinical Biochemistry
037 Drug Literature Index
LA English
SL English
AB A variety of growth factors are known to be effective in protecting hair cells and auditory neurons from ototoxic or acoustic trauma. Enhanced survival of spiral ganglion cells by administration of ***growth*** factors after ***hair*** cell death is also possible, as is growth factor-induced regrowth of peripheral processes. Use of trophic factors to mediate protection and rescue of cells in the peripheral auditory system has clear clinical implications, ranging from prophylactic prevention of noise-induced hearing loss to maintenance of spiral ganglion cells in cochlear implantation patients. Furthermore, the demonstration that growth factors can accelerate regeneration in the mammalian vestibular system suggests that they might also induce regeneration of the auditory periphery, once the factors that make this possible are identified. As our understanding of the molecular mechanisms of growth factor action grows, we will be better able to define treatments to protect, preserve, and regenerate sensory hair cells and auditory neurons.

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(FILE 'HOME' ENTERED AT 14:52:46 ON 29 MAY 2002)

FILE 'BIOSIS, MEDLINE, EMBASE' ENTERED AT 14:53:04 ON 29 MAY 2002
L1 7689 S HAIR? (3A) GROW?
L2 413 S L1 AND REVIEW
L3 237 S L2 AND PY>1995
L4 196 DUP REM L3 (41 DUPLICATES REMOVED)
L5 1173 S L1 AND (INNER EAR OR EYEBROW? OR EYELASH? OR SCALP?)
L6 0 S L1 AND INNER EAR AND EYEBROW? AND EYELASH? AND SCALP?
L7 21 S L1 AND EYEBROW? AND EYELASH? AND SCALP?
L8 11 DUP REM L7 (10 DUPLICATES REMOVED)
L9 420 S L1 AND BALD?
L10 32 S L9 AND BEARD
L11 16 DUP REM L10 (16 DUPLICATES REMOVED)
L12 31 S L1 AND INNER EAR
L13 2 S L12 AND REVIEW
L14 2 DUP REM L13 (0 DUPLICATES REMOVED)

=> s l1 and bron?
L15 23 L1 AND BRON?

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16 15 DUP REM L15 (8 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 15 ANSWERS - CONTINUE? Y/(N):y

L16 ANSWER 1 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2002:294047 BIOSIS
DN PREV200200294047
TI Benzene compound and pharmaceutical use thereof.
AU Fujita, Tetsuro (1); Adachi, Kunitomo; Kohara, Toshiyuki; Kiuchi, Masatoshi; Chiba, Kenji; Teshima, Koji; Mishina, Tadashi
CS (1) Muko Japan
ASSIGNEE: Mitsubishi Pharma Corporation, Osaka, Japan
PI US 6372800 April 16, 2002
SO Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 16, 2002) Vol. 1257, No. 3, pp. No Pagination.
http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133.
DT Patent
LA English
AB A benzene compound of the formula ##STR1## wherein each symbol is as defined in the specification; an optically active isomer or salt thereof, a medicinal composition containing the same, and an immunosuppressant containing the same as the active ingredient. The compound, optically active isomer or salt has an excellent immunosuppressive effect and is useful as an inhibitor for the rejection reaction occurring in organ or bone marrow transplantation, and as a preventive or remedy for articular rheumatism, atopic eczema (dermatitis), Behcet's disease, uveal disease, systemic lupus erythematosus, Sjogren's syndrome, multiple sclerosis, myasthenia gravis, type I diabetes, endocrine ophthalmopathy, primary biliary, cirrhosis, Crohn's disease, glomerulonephritis, sarcoidosis, psoriasis, pemphigus, aplastic anemia, idiopathic thrombocytopenic purpura, allergy, polyarteritis nodosa, progressive systemic sclerosis, mixed connective-tissue disease, aortitis syndrome, polymyositis, dermatomyositis, Wegener's granuloma, ulcerative colitis, active chronic hepatitis, autoimmune hemolytic anemia, Evans' syndrome, ***bronchial*** asthma and pollinosis. It is useful also as an antifingal agent and ***hair*** ***growth*** stimulant.

L16 ANSWER 2 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:380064 BIOSIS
DN PREV200100380064
TI Benzene compound and pharmaceutical use thereof.
AU Fujita, Tetsuro (1); Adachi, Kunitomo; Kohara, Toshiyuki; Kiuchi, Masatoshi; Chiba, Kenji; Teshima, Koji; Mishina, Tadashi
CS (1) Muko Japan
ASSIGNEE: Welfide Corporation, Osaka, Japan
PI US 6187821 February 13, 2001
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb. 13, 2001) Vol. 1243, No. 2, pp. No Pagination. e-file.
ISSN: 0098-1133.
DT Patent
LA English
AB A benzene compound of the formula: ##STR1## wherein each symbol is as defined in the specification; an optically active isomer or salt thereof, a medicinal composition containing the same, and an immunosuppressant containing the same as the active ingredient. The compound, optically active isomer or salt has an excellent immunosuppressive effect and is useful as an inhibitor for the rejection reaction occurring in organ or bone marrow transplantation, and as a preventive or remedy for articular rheumatism, atopic eczema (dermatitis), Behcet's disease, uveal disease, systemic lupus erythematosus, Sjogren's syndrome, multiple sclerosis, myasthenia gravis, type I diabetes, endocrine ophthalmopathy, primary biliary, cirrhosis, Crohn's disease, glomerulonephritis, sarcoidosis, psoriasis, pemphigus, aplastic anemia, idiopathic thrombocytopenic purpura, allergy, polyarteritis nodosa, progressive systemic sclerosis, mixed connective-tissue disease, aortitis syndrome, polymyositis, dermatomyositis, Wegener's granuloma, ulcerative colitis, active chronic hepatitis, autoimmune hemolytic anemia, Evans' syndrome, ***bronchial*** asthma and pollinosis. It is useful also as an antifungal agent and ***hair*** ***growth*** stimulant.

L16 ANSWER 3 OF 15 MEDLINE DUPLICATE 1
AN 2002096076 IN-PROCESS
DN 21683380 PubMed ID: 11825331
TI Potassium channel openers: therapeutic potential in cardiology and medicine.
AU Jahangir A; Terzic A; Shen W
CS Guggenheim 7, Mayo Clinic, Rochester, MN55905, USA.. jahangir.arshad@mayo.edu
SO Expert Opin Pharmacother, (2001 Dec) 2 (12) 1995-2010.
Journal code: 100897346. ISSN: 1465-6566.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS IN-PROCESS; NONINDEXED; Priority Journals
ED Entered STN: 20020205
Last Updated on STN: 20020205
AB Potassium (K(+)) channel openers (KCOs) define a class of chemically diverse agents that share a common molecular target, the metabolism-regulated ATP-sensitive K(+) (K(ATP)) channel. In view of the unique function that K(ATP) channels play in the maintenance of cellular homeostasis, this novel class of ion channel modulators adds to existent pharmacotherapy with potential in promoting cellular protection under conditions of metabolic stress. Indeed, experimental studies have demonstrated broad therapeutic potential for KCOs, including roles as cardioprotective agents, vasodilators, ***bronchodilators*** , bladder relaxants, anti-epileptics, insulin secretagogues and promoters of ***hair*** ***growth*** . However, clinical experience with these drugs is limited and their place in patient management needs to be fully established.

L16 ANSWER 4 OF 15 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 2001239214 EMBASE
TI An atypical case of hypertrichosis lanuginosa acquisita.
AU Moss L.
CS L. Moss, Velindre NHS Trust, Whitchurch, Cardiff CF14 2TL, United Kingdom
SO CME Bulletin Oncology, (2001) 2/3 (75-76).
Refs: 5
ISSN: 1367-9031 CODEN: CBOLF3
CY United Kingdom
DT Journal; Article

FS 013 Dermatology and Venereology
015 Chest Diseases, Thoracic Surgery and Tuberculosis
014 Radiology
005 General Pathology and Pathological Anatomy
LA English
SL English
AB Hypertrichosis lanuginosa acquisita is a rare paraneoplastic phenomenon that can cause considerable psychological distress to patients because of the cosmetic results. This case is an unusual variant as it demonstrates some features not previously described.

L16 ANSWER 5 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:170638 BIOSIS
DN PREV200000170638
TI An epidemic of porphyria cutanea tarda.
AU Brashear, Ryan; Began, Dina; Petersen, Jeff; Chuang, Tsu-Yi (1)
CS (1) Department of Dermatology, UH 3240, Indiana University Medical Center, 550 N. University Blvd., Indianapolis, IN, 46202-5267 USA
SO International Journal of Dermatology., (Feb., 2000) Vol. 39, No. 2, pp. 154-156.
ISSN: 0011-9059.
DT Article
LA English
SL English
AB Case 1: A 43-year-old man first presented to the clinic of Wishard Memorial Hospital (WMH), serving Indianapolis Metropolitan Area, Indiana, on August 10, 1998 with symptoms of stinging, burning, and blistering bilaterally on the dorsum of the hands. His past medical history was significant for polysubstance abuse, including alcohol. Physical examination revealed numerous erosions on the dorsum of the hands and forearms, with crusts and excoriation, in addition to several small vesicles on the hands (Fig. 1). Hypertrichosis was noted in the temporal area. A sample of the patient's urine fluoresced reddish-pink under Wood's lamp exposure. Laboratory studies were positive for hepatitis C virus (HCV) antibodies (second generation enzyme-linked immunosorbent assay, ELISA), but negative for hepatitis B virus (HBV) markers. Hemoglobin was 18.2 g/dL and hematocrit 53%. Liver enzymes were elevated with an aspartate aminotransferase (AST) of 214 units and alanine aminotransferase (ALT) of 297 units. A fractionated 24-h urine specimen collected on August 18, 1998 demonstrated a markedly elevated uroporphyrin of 4174 mug/total volume (tv) (ref.: 3-30 mug/tv) and a coproporphyrin of 123 mug/tv (ref.: 0-155 mug/tv). A diagnosis of porphyria cutanea tarda (PCT) and HCV was made, therapeutic phlebotomies were initiated, and the patient was referred to the Hepatology Section for follow-up. Case 2: A 40-year-old man first presented to our clinic on August 20, 1998 complaining of fragile skin, blister formation of the dorsum of the hands, hairy temporal area, and overall ***bronze*** appearance of the skin. The patient also described increased ***hair*** ***growth*** in the temporal area. The patient had hepatitis C (diagnosed in December 1993 by second generation ELISA), immunoglobulin A (IgA) nephropathy requiring hemodialysis following 3 years of peritoneal dialysis, and polysubstance abuse (including alcohol). He had elevated total plasma porphyrin of 2.4 mug/dL (ref.: <1.1 mug/dL) and uroporphyrin of 1.1 mug/dL (ref.: <1.1 mug/dL). With these findings on August 20, 1998, a diagnosis of PCT was made. Case 3: A 49-year-old man first presented to the WMH clinic on June 18, 1998 with blistering on the dorsum of the bilateral fingers and various pigmentations of the hands. He had anemia, polysubstance abuse (including alcohol), and hemodialysis. A diagnosis of PCT was made on August 17, 1998 based on the findings of uroporphyrin 12.3 mug/dL, heptacarboxyporphyrins 8.0 mug/dL, and hexocarboxyporphyrins 2.4 mug/dL (ref. all: <1.1 mug/dL). His HCV infection was established in June 1996 with a second generation ELISA. Case 4: A 32-year-old man first presented to the WMH clinic on September 4, 1998 upon noticing that he had shown similar symptoms and signs over the past year to his brother-in-law, who is Case 1 of this report. He was a heavy alcohol drinker. Tests performed on September 4, 1998 demonstrated HCV antibody, elevated AST/ALT, elevated uroporphyrins of 3253 mug/tv, and coproporphyrins of 735 mug/tv in 24-h urine. A diagnosis of PCT was made and therapeutic phlebotomies were initiated.

L16 ANSWER 6 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
2
AN 1999:142244 BIOSIS
DN PREV199900142244
TI Pharmacology of rosemary (Rosmarinus offinalis Linn.) and its therapeutic potentials.
AU Al-Sereiti, M. R.; Abu-Amer, K. M.; Sen, P. (1)
CS (1) Dep. Pharmacol., Fac. Med., Al-Fateh Univ. Med. Sci., Tripoli Libya
SO Indian Journal of Experimental Biology, (Feb., 1999) Vol. 37, No. 2, pp. 124-130.
ISSN: 0019-5189.
DT General Review
LA English
AB The use of plants is as old as the mankind. Natural products are cheap and claimed to be safe. They are also suitable raw material for production of new synthetic agents. Rosemary (Rosmarinus officinalis Linn.) is a common household plant grown in many parts of the world. It is used for flavouring food, a beverage drink, as well as in cosmetics; in folk.medicine it is used as an antispasmodic in renal colic and dysmenorrhoea, in relieving respiratory disorders and to stimulate ***growth*** of ***hair*** . Extract of rosemary relaxes smooth muscles of trachea and intestine, and has choleretic, hepatoprotective and antitumerogenic activity. The most important constituents of rosemary are caffeic acid and its derivatives such as rosmarinic acid. These compounds have antioxidant effect. The phenolic compound, rosmarinic acid, obtains one of its phenolic rings from phenylalanine via caffeic acid and the other from tyrosine via dihydroxyphenyl-lactic acid. Relatively large-scale production of rosmarinic acid can be obtained from the cell culture of Coleus blumei Benth when supplied exogenously with phenylalanine and tyrosine. Rosmarinic acid is well absorbed from gastrointestinal tract and from the skin. It increases the production of prostaglandin E2 and reduces the production of leukotriene B4 in human polymorphonuclear leucocytes, and inhibits the complement system. It is concluded that rosemary and its constituents especially caffeic acid derivatives such as rosmarinic acid have a therapeutic potential in treatment or prevention of ***bronchial*** asthma, spasmogenic disorders, peptic ulcer, inflammatory diseases, hepatotoxicity, atherosclerosis, ischaemic heart disease, cataract, cancer and poor sperm motility.

L16 ANSWER 7 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3
AN 1996:325038 BIOSIS
DN PREV199699047394
TI Prophylactic and therapeutic aspects of chronic laryngostenosis.
AU Gunchikov, M. V.
CS Dep. Ear Nose Throat Disord., Russ. Med. Acad. Postgrad. Educ., Moscow Russia
SO Vestnik Otorinolaringologii, (1996) Vol. 0, No. 2, pp. 27-29.
ISSN: 0042-4668.
DT Article
LA Russian
SL English
AB The occurrence of scar laryngostenosis due to traumas and removal of laryngeal tumors is now on the increase. This negative trend may be corrected by rejection of long-term intubation, immediate convertion of crico-, conico- and thyrotomy into tracheostomy, employment of preventive laryngostomy in initial treatment of patients with serious trauma of the larynx. It should be taken into consideration that in restoration of respiration through natural airways ***bronchopulmonary*** complications, dysphonia, dysphagia, ***hair*** ***growth*** into the laryngeal lumen are possible.

L16 ANSWER 8 OF 15 MEDLINE DUPLICATE 4
AN 93028408 MEDLINE
DN 93028408 PubMed ID: 1409605
TI Cell-specific expression of a Clara cell secretory protein-human growth hormone gene in the ***bronchiolar*** epithelium of transgenic mice.
AU Hackett B P; Gitlin J D
CS Edward Mallinckrodt Department of Pediatrics, Washington University School of Medicine, St. Louis, MO 63110.
NC F32HL08582 (NHLBI)
HL41536 (NHLBI)
NO1-HD-0-2911 (NICHD)
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
AMERICA, (1992 Oct 1) 89 (19) 9079-83.
Journal code: PV3; 7505876. ISSN: 0027-8424.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199211
ED Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921110
AB Clara cell secretory protein (CCSP) is an abundant 10-kDa protein synthesized and secreted by nonciliated epithelial cells lining the respiratory and terminal ***bronchioles*** of the lung. CCSP gene expression is an informative developmental marker within the ***bronchiolar*** epithelium recapitulating cellular differentiation in the distal respiratory epithelium during late fetal and early postnatal life. To define the mechanisms that establish and maintain gene expression within this epithelium, CCSP-human growth hormone chimeric gene constructs were created and used to generate transgenic mice. RNA blot analysis of organs from F1 transgenic offspring and normal littermates revealed that cis-acting elements within 2.25 kilobases of the 5' flanking region of the CCSP gene were sufficient to direct lung-specific expression of human growth hormone. In situ hybridization and immunohistochemistry of individual ***bronchioles*** revealed that human growth hormone expression in the respiratory epithelium of these mice was confined to Clara cells, consistent with observations of the endogenous CCSP gene. Unexpectedly, founder animals and F1 transgenic offspring exhibited an unusual phenotype of ***growth*** retardation and delayed ***hair*** appearance, suggesting a unique effect of human growth hormone on normal intrauterine development. CCSP-human growth hormone transgenic mice provide a model to dissect the developmental mechanisms regulating gene expression during pulmonary epithelial cell growth and differentiation. Definition of the cis-acting elements determining such cell-specific expression will be of value in strategies for the somatic gene therapy of human pulmonary disease.

L16 ANSWER 9 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1992:461608 BIOSIS
DN BA94:103008
TI HAIR ANALYSIS FOR DRUGS OF ABUSE III. MOVEMENT AND STABILITY OF
METHOXYPHENAMINE AS A MODEL COMPOUND OF METHAMPHETAMINE ALONG ***HAIR***
SHAFT WITH ***HAIR*** ***GROWTH*** .
AU NAKAHARA Y; SHIMAMINE M; TAKAHASHI K
CS NATL. INST. HYGIENIC SCI., 1-18-1 KAMIYOGA, SETAGAYA-KU, TOKYO, JPN.
SO J ANAL TOXICOL, (1992) 16 (4), 253-257.
CODEN: JATOD3. ISSN: 0146-4760.
FS BA; OLD
LA English
AB This paper describes the movement of methoxyphenamine (MOP, a model compound of methamphetamine) along the hair shaft at the rate of ***hair*** ***growth*** and the stability of drugs in hair for several months. Five healthy subjects (3 males and 2 females) took 50 mg of methoxyphenamine orally once a day for 7 days. Scalp hairs from the posterior vertex were collected every 2 weeks or every 8 weeks after the first dosage. The hairs were cut into 1-cm sections and extracted with methanol-5N HCl (20:1). MOP in the extract was determined by gas chromatogaphy/mass spectrometry (GC/MS) with tetradeuterium labeled MOP as an internal standard. The drug moved along hair shaft at the rate of 2.8-3.2 mm/week, according to ***hair*** ***growth*** , without diffusion. When drug bands were extrapolated according to the sections in which drug was detected, the bands were approximately 5 mm wide, equivalent to 1.7-2.4 periods of 7-day ***hair*** ***growth*** . In the case of identical doses, the drug level was highest in the root side and lowest in the distal side. In our data, we found that the drug level in hair had decreased approximately 50% five months later. The ratio of drug levels in corresponding sections correlated well to the ratio of doses, except where the hair shafts had been damaged or the drugs had decomposed.

L16 ANSWER 10 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
5
AN 1990:481774 BIOSIS
DN BR39:105795
TI ECTODERMAL DYSPLASIA THE OTOLARYNGOLOGIC MANIFESTATIONS AND MANAGEMENT.
AU SIEGEL M B; POTSIC W P
CS DEP. OTOLARYNGOL., HOSP. UNIV. PA., 3400 SPRUCE ST., PHILADELPHIA, PA.
19104, USA.
SO Int. J. Pediatr. Otorhinolaryngol., (1990) 19 (3), 265-272.
CODEN: IPOTDJ.
FS BR; OLD
LA English

L16 ANSWER 11 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1985:377509 BIOSIS
DN BA80:47501
TI ULTRASTRUCTURE DIFFERENTIATION AND CELL WALL TEXTURE OF TRICHOBLASTS AND
ROOT HAIRS OF CERATOPTERIS-THALICTROIDES PARKERIACEAE.
AU MEEKES H T H M
CS DEP. BOTANY, UNIV. NIJMEGEN, TOERNOOIVELD, 6525 ED, NIGMEGEN, NETH.
SO AQUAT BOT, (1985) 21 (4), 347-362.
CODEN: AQBODS. ISSN: 0304-3770.
FS BA; OLD
LA English
AB Trichoblasts and root hairs of C. thalictroides (L.) ***Brongn*** . were studied by different techniques to survey their morphological features. Trichoblasts could be identified at an early stage by an intra-vacuolar precipitate appearing during fixation. Special attention was paid to root-hair initiation. No structures or changes were observed that play a role in the initiation of papilla formation. When the papilla is formed, vesicles and periplasmic membranes can be observed which may play a role in the weakening of the cell wall during the papilla outgrowth. During root- ***hair*** ***growth*** , the nucleus of the trichoblast moves from the trichoblast to a subapical position in the root hair. The nuclei of all root cells contain 2 types of nuclear inclusions, one of which is proteinaceous. The cell wall of the Ceratopteris root hair has a helicoidal texture and because the cortical microtubules run longitudinally in the root hair, no correlation can be made between the directions of microtubules and microfibrils in these root hairs.

L16 ANSWER 12 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
6
AN 1985:356675 BIOSIS
DN BA80:26667
TI PATHOLOGICAL CHANGES DURING THE DEVELOPMENT OF THE VESTIBULAR SENSORY AND
. GANGLION CELLS OF THE ***BRONX*** WALTZER MOUSE SCANNING AND
TRANSMISSION ELECTRON MICROSCOPY.
AU DEMEMES D; SANS A
CS U.S.T.L., LAB. NEUROPHYSIOLOGIE SENSORIELLE, PLACE B. BATAILLON, 34060
MONTPELLIER, CEDEX, FRANCE.
SO DEV BRAIN RES, (1985) 18 (1-2), 285-296.
CODEN: DBRRDB. ISSN: 0165-3806.
FS BA; OLD
LA English
AB Vestibular receptors and ganglia of homozygous ***Bronx*** waltzer(bv/bv) mice were investigated by scanning and transmission electron microscopy at various stages between 3 days and 90 days after birth. Scanning electron microscopy revealed that there was already a considerable lack of hair bundles in the maculae utriculi, as well as in the cristae ampullares by the 3rd day after birth. During development, the ***growth*** of the remaining ***hair*** bundles was observed but most of them exhibited morphological abnormalities. Transmission electron microscopy revealed early degeneration of sensory cells followed by delayed maturation of the remaining sensory cells. The sensory cells which seem unaffected displayed immature features in adult animals. In type I hair cells, the calyces were incomplete, contacts between the cell and the afferent calyces were immature and synaptic bodies persisted. In some type II hair cells, there was an abnormal overabundance of afferent nerve endings, which implies that these type II cells could be immature type I cells. Immature features were also observed in the vestibular ganglia, particularly the absence of the myelin sheath around the perikarya. The relationship between these vestibular morphogenetic abnormalities and those described in the cochlear system are discussed.

L16 ANSWER 13 OF 15 MEDLINE
AN 85176175 MEDLINE
DN 85176175 PubMed ID: 3986619
TI Pathological changes during the development of the vestibular sensory and ganglion cells of the ***Bronx*** waltzer mouse. Scanning and transmission electron microscopy.
AU Dememes D; Sans A
SO BRAIN RESEARCH, (1985 Feb) 350 (1-2) 285-95.
Journal code: B5L; 0045503. ISSN: 0006-8993.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198506
ED Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19850617
AB Vestibular receptors and ganglia of homozygous ***Bronx*** waltzer (bv/bv) mice were investigated by scanning and transmission electron microscopy at various stages between 3 days and 90 days after birth. Scanning electron microscopy revealed that there was already a considerable lack of hair bundles in the maculae utriculi, as well as in the cristae ampullares by the 3rd day after birth. During development, the ***growth*** of the remaining ***hair*** bundles was observed but the most of them exhibited morphological abnormalities. Transmission electron microscopy revealed early degeneration of sensory cells followed by delayed maturation of the remaining sensory cells. The sensory cells which seem unaffected displayed immature features in adult animals. In type I hair cells, the calyces were incomplete, contacts between the cell and the afferent calyces were immature and synaptic bodies persisted. In some type II hair cells, there was an abnormal overabundance of afferent nerve endings, which implies that these type II cells could be immature type I cells. Immature features were also observed in the vestibular ganglia, particularly the absence of the myelin sheath around the perikarya. We discuss the relationship between these vestibular morphogenetic abnormalities and those described in the cochlear system.

L16 ANSWER 14 OF 15 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 81115881 EMBASE
DN 1981115881
TI Acquired hypertrichosis lanuginosa and carcinoma of the ***bronchus***
.
AU Shee C.D.; Graham V.A.L.
CS Dept. Med., St Thomas' Hosp., London SE1 7EH, United Kingdom
SO Thorax, (1981) 36/2 (153-154).
CODEN: THORA7
CY United Kingdom
DT Journal
FS 015 Chest Diseases, Thoracic Surgery and Tuberculosis
013 Dermatology and Venereology
016 Cancer
005 General Pathology and Pathological Anatomy
LA English
AB Hypertrichosis lanuginosa is a rare entity characterised by an excess ***growth*** of fine lanugo ***hair*** on the hair-bearing surfaces of the body. The condition is usually congenital but acquired hypertrichosis lanuginosa may arise in association with neoplasia as in the 57-year-old male patient described.

L16 ANSWER 15 OF 15 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AN 78146378 EMBASE
DN 1978146378
TI Newer antihypertensive drugs.
AU Ram C.V.S.

CS Dept. Med., Rhode Island Hosp., Div. Biol. Med. Sci., Brown Univ., Providence, R.I., United States
SO Heart and Lung: Journal of Critical Care, (1977) 6/4 (679-684). CODEN: HELUAI
CY United States
DT Journal
FS 038 Adverse Reactions Titles
037 Drug Literature Index
018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
LA English

=> d his

(FILE 'HOME' ENTERED AT 14:52:46 ON 29 MAY 2002)

FILE 'BIOSIS, MEDLINE, EMBASE' ENTERED AT 14:53:04 ON 29 MAY 2002
L1 7689 S HAIR? (3A) GROW?
L2 413 S L1 AND REVIEW
L3 237 S L2 AND PY>1995
L4 196 DUP REM L3 (41 DUPLICATES REMOVED)
L5 1173 S L1 AND (INNER EAR OR EYEBROW? OR EYELASH? OR SCALP?)
L6 0 S L1 AND INNER EAR AND EYEBROW? AND EYELASH? AND SCALP?
L7 21 S L1 AND EYEBROW? AND EYELASH? AND SCALP?
L8 11 DUP REM L7 (10 DUPLICATES REMOVED)
L9 420 S L1 AND BALD?
L10 32 S L9 AND BEARD
L11 16 DUP REM L10 (16 DUPLICATES REMOVED)
L12 31 S L1 AND INNER EAR
L13 2 S L12 AND REVIEW
L14 2 DUP REM L13 (0 DUPLICATES REMOVED)
L15 23 S L1 AND BRON?
L16 15 DUP REM L15 (8 DUPLICATES REMOVED)

=> s l1 and inner ear and scalp
L17 0 L1 AND INNER EAR AND SCALP

=> s l1 and math1
L18 0 L1 AND MATH1

=> s l1 and math
L19 0 L1 AND MATH

=> s l1 and hath1
L20 0 L1 AND HATH1

=> s l1 and hath
L21 0 L1 AND HATH

=> s l1 and aton? associat?
L22 0 L1 AND ATON? ASSOCIAT?

=> s l1 and ato
L23 1 L1 AND ATO

=> d bib abs

L23 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1993:247671 BIOSIS
DN PREV199395126846
TI Residual effects of interseeded hairy vetch on soil-nitrate-nitrogen levels.
AU Brown, R. E.; Varvel, G. E. (1); Shapiro, C. A.
CS (1) USDA-ARS, Dep. Agron., Univ. Nebr., Lincoln, NE 68583 USA
SO Soil Science Society of America Journal, (1993) Vol. 57, No. 1, pp. 121-124.
ISSN: 0361-5995.
DT Article
LA English
AB Increased use of winter legume cover crops has renewed interest in legume N mineralization patterns. This study was conducted to monitor the residual effect of a hairy vetch (Vicia villosa Roth) cover crop and fertilizer N on surface soil NO-3-N concentration in no-till and conventional-till corn (Zea mays L.) in northeastern Nebraska on a Nora silty clay loam (fine-silty, mixed, mesic Udic Halplustoll). The experimental design was a split-split-split plot with three replicates. Main plots of conventional tillage and no-till were split into 0, 67, and 134 kg N ha-1 with and without hairy vetch. Soil samples were taken from the 0- to 7.5- and 7.5- to 15-cm depths five times during the 1987 growing season and three times in 1988. Inclusion of a hairy vetch cover cup interseeded during the previous growing season increased soil NO-3-N concentration in the surface 7.5 cm between 50 and 64 d after corn planting and in the 7.5- to 15-cm soil layer between 50 and 78 d after corn planting during 1987. In 1988 (a dry ***growing*** season), ***hairy*** vetch did not significantly increase soil NO-3-N concentration in the 0- to 7.5-cm soil layer at any sampling time, but did increase soil NO-3-N concentration in the 7.5- ***ato*** 15-cm depth 103 d after planting. This increase in soil NO-3-N concentration occurred in hairy vetch plots after silking, which probably resulted in the additional N not being available for plant growth in 1988. Increased available N resulting from a legume cover crop likely hairy vetch may be beneficial in N management programs in lower rainfall areas of the USA when amounts of precipitation are adequate for plant growth and N mineralization.

=> s l1 and atonal
L24 0 L1 AND ATONAL

=> s hath1
L25 6 HATH1

=> dup rem l25
PROCESSING COMPLETED FOR L25
L26 3 DUP REM L25 (3 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L26 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
AN 2000:541287 BIOSIS
DN PREV200000541287
TI Developmental regulation of neurogenesis in the pluripotent human embryonal carcinoma cell line NTERA-2.
AU Przyborski, S. A.; Morton, I. E.; Wood, A.; Andrews, P. W. (1)
CS (1) Department of Biomedical Science, University of Sheffield, Western Bank, Sheffield, S10 2TN UK
SO European Journal of Neuroscience, (October, 2000) Vol. 12, No. 10, pp. 3521-3528. print.
ISSN: 0953-816X.
DT Article
LA English
SL English
AB Embryonal carcinoma (EC) cells provide a caricature of pluripotent embryonic stem (ES) cells and may be used as surrogates for investigating the mechanisms that regulate cell differentiation during embryonic development. NTERA-2 is a human EC cell line that differentiates in response to retinoic acid yielding cells that include terminally differentiated neurons. The expression of genes known to be involved in the formation of the vertebrate nervous system was examined during retinoic acid-induced NTERA-2 differentiation. Differentiation of these human EC cells into neurons could be divided into three sequential phases. During phase 1, in the first week of differentiation, ***hath1*** mRNA showed a small transient increase that correlated with the rapid accumulation of nestin message, a marker of neuroprogenitors. Transcripts of nestin were quickly downregulated during phase 2 as expression of neuroD1, characteristic of neuroprogenitors exiting the cell cycle, was induced. A neural cell surface antigen, detected by the monoclonal antibody A2B5, was expressed by cells exiting the cell cycle, correlating with the expression of neuroD1 as the cells became postmitotic. Markers of mature neural cells (e.g. synaptophysin and neuron-specific enolase) were subsequently increased during phase 3 and were maintained. This regulated pattern of gene expression and commitment to the neural lineage indicates that differentiation of NTERA-2 neurons in vitro follows a similar pathway to that observed by neural ectodermal precursors during vertebrate neurogenesis in vivo.

L26 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:148994 BIOSIS
DN PREV200000148994
TI Conservation of regulated neural gene expression in a human pluripotent stem cell line.
AU Przyborski, S. A. (1); Wood, A.; Andrews, P. W. (1)
CS (1) Dept. Biomedical Science, University of Sheffield, Sheffield, S10 2TN UK
SO Society for Neuroscience Abstracts., (1999) Vol. 25, No. 1-2, pp. 2290. Meeting Info.: 29th Annual Meeting of the Society for Neuroscience. Miami Beach, Florida, USA October 23-28, 1999 Society for Neuroscience . ISSN: 0190-5295.
DT Conference
LA English
SL English

L26 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
AN 1996:484133 BIOSIS
DN PREV199699199389
TI Evolutionary conservation of sequence and expression of the bHLH protein atonal suggests a conserved role in neurogenesis.
AU Ben-Arie, Nissim; McCall, Alanna E.; Berkman, Scott; Eichele, Gergor; Bellen, Hugo J.; Zoghbi, Huda Y. (1)
CS (1) Dep. Pediatr., Baylor Coll. Med., One Baylor Plaza, Houston, TX 77030 USA
SO Human Molecular Genetics, (1996) Vol. 5, No. 9, pp. 1207-1216.
ISSN: 0964-6906.
DT Article
LA English
AB atonal is a Drosophila proneural gene that belongs to the family of basic helix-loop-helix (bHLH)- containing proteins. It is expressed in the chordotonal organs and photoreceptor cells, and flies that lack Atonal

protein are ataxic and blind. Here we report the cloning of atonal homologs from red flour beetle, puffer fish, chicken, mouse, and human. The bHLH domain is conserved throughout evolution, while the entire coding region is highly similar in mammals. Both the chicken and the mouse homologs are expressed early in embryogenesis in the hind brain, and specifically in cells predicted to give rise to the external granular layer of the cerebellum. In addition, these genes are expressed throughout the dorsal part of the spinal cord, in patterns different from those found for other genes, like LH-2 and wnt-1. The mouse homolog (Math1) maps to mouse chromosome 6, and the human homolog (***HATH1***) to human chromosome 4q22. Two neurological mouse mutants, Lc and chp, were found to map to the vicinity of Math1, but are not caused by mutations in Math1. The evolutionary conservation of this gene and its mRNA expression patterns during embryogenesis suggests that it plays a key role in the development of the vertebrate central nervous system.

=> s bHLH and l1
L27 0 BHLH AND L1

=> s bHLH and hair
L28 27 BHLH AND HAIR

=> dup rem l28
PROCESSING COMPLETED FOR L28
L29 12 DUP REM L28 (15 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 12 ANSWERS - CONTINUE? Y/(N):y

L29 ANSWER 1 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1
AN 2001:330053 BIOSIS
DN PREV200100330053
TI Hes1 and Hes5 activities are required for the normal development of the ***hair*** cells in the mammalian inner ear.
AU Zine, Azel (1); Aubert, Alexandre; Qiu, Jiping; Therianos, Stavros; Guillemot, Francois; Kageyama, Ryoichiro; de Ribaupierre, Francois
CS (1) Institut de Physiologie, 7 Rue du Bugnon, CH-1005, Lausanne: azel.zine@iphysiol.unil.ch Switzerland
SO Journal of Neuroscience, (July 1, 2001) Vol. 21, No. 13, pp. 4712-4720. print.
ISSN: 0270-6474.
DT Article
LA English
SL English
AB The mammalian inner ear contains two sensory organs, the cochlea and vestibule. Their sensory neuroepithelia are characterized by a mosaic of ***hair*** cells and supporting cells. Cochlear ***hair*** cells differentiate in four rows: a single row of inner ***hair*** cells (IHCs) and three rows of outer ***hair*** cells (OHCs). Recent studies have shown that Math1, a mammalian homolog of Drosophila atonal is a positive regulator of ***hair*** cell differentiation. The basic helix-loop-helix (***bHLH***) genes Hes1 and Hes5 (mammalian hairy and Enhancer-of-split homologs) can influence cell fate determination by acting as negative regulators to inhibit the action of ***bHLH*** -positive regulators. We show by using reverse transcription-PCR analysis that Hes1, Hes5, and Math1 are expressed in the developing mouse cochleae. In situ hybridization revealed a widespread expression of Hes1 in the greater epithelial ridge (GER) and in lesser epithelial ridge (LER) regions. Hes5 is predominantly expressed in the LER, in supporting cells, and in a narrow band of cells within the GER. Examination of cochleae from Hes1-/- mice showed a significant increase in the number of IHCs, whereas cochleae from Hes5-/- mice showed a significant increase in the number of OHCs. In the vestibular system, targeted deletion of Hes1 and to a lesser extent Hes5 lead to formation of supernumerary ***hair*** cells in the saccule and utricle. The supernumerary ***hair*** cells in the mutant mice showed an upregulation of Math1. These data indicate that Hes1 and Hes5 participate together for the control of inner ear ***hair*** cell production, likely through the negative regulation of Math1.

L29 ANSWER 2 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:523220 BIOSIS
DN PREV200100523220
TI Evolution and development of the vertebrate ear.
AU Fritzsch, B. (1); Beisel, K. W.
CS (1) Department of Biomedical Sciences, Creighton University, Omaha, NE, 68178: fritzsch@creighton.edu USA
SO Brain Research Bulletin, (August, 2001) Vol. 55, No. 6, pp. 711-721. print.
ISSN: 0361-9230.
DT General Review
LA English
SL English
AB This review outlines major aspects of development and evolution of the ear, specifically addressing issues of cell fate commitment and the emerging molecular governance of these decisions. Available data support the notion of homology of subsets of mechanosensors across phyla (proprioreceptive mechanosensory neurons in insects, ***hair*** cells in vertebrates). It is argued that this conservation is primarily related to the specific transducing environment needed to achieve mechanosensation. Achieving this requires highly conserved transcription factors that regulate the expression of the relevant structural genes for mechanosensory transduction. While conserved at the level of some cell fate assignment genes (atonal and its mammalian homologue), the ear has also radically reorganized its development by implementing genes used for cell fate assignment in other parts of the developing nervous systems (e.g., neurogenin 1) and by evolving novel sets of genes specifically associated with the novel formation of sensory neurons that contact ***hair*** cells (neurotrophins and their receptors). Numerous genes have been identified that regulate morphogenesis, but there is only one common feature that emerges at the moment: the ear appears to have co-opted genes from a large variety of other parts of the developing body (forebrain, limbs, kidneys) and establishes, in combination with existing transcription factors, an environment in which those genes govern novel, ear-related morphogenetic aspects. The ear thus represents a unique mix of highly conserved developmental elements combined with co-opted and newly evolved developmental elements.

L29 ANSWER 3 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
2
AN 2001:21030 BIOSIS
DN PREV200100021030
TI GL3 encodes a ***bHLH*** protein that regulates trichome development in Arabidopsis through interaction with GL1 and TTG1.
AU Payne, C. Thomas; Zhang, Fan; Lloyd, Alan M. (1)
CS (1) MCDB, ICMB, University of Texas, 2500 Speedway, Austin, TX, 78712-1095: lloyd@uts.cc.utexas.edu USA
SO Genetics, (November, 2000) Vol. 156, No. 3, pp. 1349-1362. print.
ISSN: 0016-6731.
DT Article
LA English
SL English
AB Arabidopsis trichome development and differentiation is a well-studied model for plant cell-fate determination and morphogenesis. Mutations in TRANSPARENT TESTA GLABRA1 (TTG1) result in several pleiotropic defects including an almost complete lack of trichomes. The complex phenotype caused by ttg1 mutations is suppressed by ectopic expression of the maize anthocyanin regulator R. Here it is demonstrated that the Arabidopsis trichome development locus GLABRA3 (GL3) encodes an R homolog. GL3 and GLABRA1 (GL1) interact when overexpressed together in plants. Yeast two-hybrid assays indicate that GL3 participates in physical interactions with GL1, TTG1, and itself, but that GL1 and TTG1 do not interact. These data suggest a reiterated combinatorial model for the differential regulation of such diverse developmental pathways as trichome cell-fate determination, root ***hair*** spacing, and anthocyanin secondary metabolism.

L29 ANSWER 4 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3
AN 2000:204508 BIOSIS
DN PREV200000204508
TI Autoregulation and multiple enhancers control Math1 expression in the developing nervous system.
AU Helms, Amy W.; Abney, Andrew L.; Ben-Arie, Nissim; Zoghbi, Huda Y.; Johnson, Jane E. (1)
CS (1) Center for Basic Neuroscience, University of Texas Southwestern Medical Center, 5323 Harry Hines Blvd, Dallas, TX, 75235 USA
SO Development (Cambridge), (March, 2000) Vol. 127, No. 6, pp. 1185-1196. ISSN: 0950-1991.
DT Article
LA English
SL English
AB Development of the vertebrate nervous system requires the actions of transcription factors that establish regional domains of gene expression, which results in the generation of diverse neuronal cell types. MATH1, a transcription factor of the ***bHLH*** class, is expressed during development of the nervous system in multiple neuronal domains, including the dorsal neural tube, the EGL of the cerebellum and the ***hair*** cells of the vestibular and auditory systems. MATH1 is essential for proper development of the granular layer of the cerebellum and the ***hair*** cells of the cochlear and vestibular systems, as shown in mice carrying a targeted disruption of Math1. Previously, we showed that 21 kb of sequence flanking the Math1-coding region is sufficient for Math1 expression in transgenic mice. Here we identify two discrete sequences within the 21 kb region that are conserved between mouse and human, and are sufficient for driving a lacZ reporter gene in these domains of Math1 expression in transgenic mice. The two identified enhancers, while dissimilar in sequence, appear to have redundant activities in the different Math1 expression domains except the spinal neural tube. The regulatory mechanisms for each of the diverse Mathl expression domains are tightly linked, as separable regulatory elements for any given domain of Math1 expression were not found, suggesting that a common regulatory mechanism controls these apparently unrelated domains of expression. In addition, we demonstrate a role for autoregulation in controlling the activity of the Math1 enhancer, through an essential E-box consensus binding site.

L29 ANSWER 5 OF 12 MEDLINE DUPLICATE 4
AN 2001497792 MEDLINE
DN 21427868 PubMed ID: 11545143
TI Expression of Math1 and HES5 in the cochleae of wildtype and Jag2 mutant

mice.
AU Lanford P J; Shailam R; Norton C R; Gridley T; Kelley M W
CS Department of Cell Biology, Georgetown University School of Medicine, Washington, DC 20007, USA.. lanfordp@nidcd.nih.gov
NC NS36437 (NINDS)
SO J Assoc Res Otolaryngol, (2000 Sep) 1 (2) 161-71.
Journal code: D4F; 100892857. ISSN: 1525-3961.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200109
ED Entered STN: 20010910
Last Updated on STN: 20010924
Entered Medline: 20010920
AB The sensory epithelium within the mammalian cochlea (the organ of Corti) is a strictly ordered cellular array consisting of sensory ***hair*** cells and nonsensory supporting cells. Previous research has demonstrated that Notch-mediated lateral inhibition plays a key role in the determination of cell types within this array. Specificallly, genetic deletion of the Notch ligand, Jagged2, results in a significant increase in the number of ***hair*** cells that develop within the sensory epithelium, presumably as a result of a decrease in Notch activation. In contrast, the downstream mediators and targets of the Notch pathway in the inner ear have not been determined but they may include genes encoding the proneural gene Math1 as well as the HES family of inhibitory ***bHLH*** proteins. To determine the potential roles of these genes in cochlear development, in situ hybridization for Math1 and HES5 was performed on the cochleae of wild-type vs. Jagged2 mutants (Jag2deltaDSL). Results in wild-type cochleae show that expression of Math1 transcripts in the duct begins on E13 and ultimately becomes restricted to ***hair*** cells in the sensory epithelium. In contrast, expression of HES5 begins on E15 and becomes restricted to supporting cells in the epithelium. Results in Jag2 mutant cochleae suggest that Math1 transcripts are ultimately maintained in a larger number of cells as compared with wild-type, while transcripts for HES5 are dramatically reduced throughout the epithelium. These results are consistent with the hypothesis that activation of Notch via Jagged2 acts to inhibit expression of Math1 in cochlear progenitor cells, possibly through the activity of HES5.

L29 ANSWER 6 OF 12 MEDLINE DUPLICATE 5
AN 2001128216 MEDLINE
DN 21003530 PubMed ID: 11117521
TI Developmental evolutionary biology of the vertebrate ear: conserving mechanoelectric transduction and developmental pathways in diverging morphologies.
AU Fritzsch B; Beisel K W; Bermingham N A
CS Creighton University, Department of Biomedical Sciences, Omaha, NE 68178, USA..
NC 2 P01 DC00215 (NIDCD)
R01 DC04279 (NIDCD)
SO NEUROREPORT, (2000 Nov 27) 11 (17) R35-44. Ref: 69
Journal code: A6M; 9100935. ISSN: 0959-4965.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals; S
EM 200103
ED Entered STN: 20010404
Last Updated on STN: 20011023
Entered Medline: 20010301
AB This brief overview shows that a start has been made to molecularly dissect vertebrate ear development and its evolutionary conservation to the development of the insect hearing organ. However, neither the patterning process of the ear nor the patterning process of insect sensory organs is sufficiently known at the moment to provide more than a first glimpse. Moreover, hardly anything is known about otocyst development of the cephalopod molluscs, another triploblast lineage that evolved complex 'ears'. We hope that the apparent conserved functional and cellular components present in the ciliated sensory neurons/ ***hair*** cells will also be found in the genes required for vertebrate ear and insect sensory organ morphogenesis (Fig. 3). Likewise, we expect that homologous pre-patterning genes will soon be identified for the non-sensory cell development, which is more than a blocking of neuronal development through the Delta/Notch signaling system. Generation of the apparently unique ear could thus represent a multiplication of non-sensory cells by asymmetric and symmetric divisions as well as modification of existing patterning process by implementing novel developmental modules. In the final analysis, the vertebrate ear may come about by increasing the level of gene interactions in an already existing and highly conserved interactive cascade of ***bHLH*** genes. Since this was apparently achieved in all three lineages of triploblasts independently (Fig. 3), we now need to understand how much of the morphogenetic cascades are equally conserved across phyla to generate complex ears. The existing mutations in humans and mice may be able to point the direction of future research to understand the development of specific cell types and morphologies in the formation of complex arthropod, cephalopod, and vertebrate 'ears'.

L29 ANSWER 7 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
6
AN 2000:49643 BIOSIS
DN PREV200000049643
TI WEREWOLF, a MYB-related protein in Arabidopsis, is a position-dependent regulator of epidermal cell patterning.
AU Lee, Myeong Min; Schiefelbein, John (1)
CS (1) Department of Biology, University of Michigan, Ann Arbor, MI USA
SO Cell, (Nov. 24, 1999) Vol. 99, No. 5, pp. 473-483.
ISSN: 0092-8674.
DT Article
LA English
SL English
AB The formation of the root epidermis of Arabidopsis provides a simple and elegant model for the analysis of cell patterning. A novel gene, WEREWOLF (WER), is described here that is required for position-dependent patterning of the epidermal cell types. The WER gene encodes a MYB-type protein and is preferentially expressed within cells destined to adopt the non- ***hair*** fate. Furthermore, WER is shown to regulate the position-dependent expression of the GLABRA2 homeobox gene, to interact with a ***bHLH*** protein, and to act in opposition to the CAPRICE MYB. These results suggest a simple model to explain the specification of the two root epidermal cell types, and they provide insight into the molecular mechanisms used to control cell patterning.

L29 ANSWER 8 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
7
AN 1999:325093 BIOSIS
DN PREV199900325093
TI Microphthalmia-associated transcription factor (MITF) locus lacks linkage to human vitiligo or osteopetrosis: An evaluation.
AU Tripathi, Ram K.; Flanders, Dean J.; Young, Terri L.; Oetting, William S.; Ramaiah, Abburi; King, Richard A.; Boissy, Raymond E. (1); Nordlund, James J.
CS (1) Department of Dermatology, University of Cincinnati, Cincinnati, OH, 45267-0592 USA
SO Pigment Cell Research, (June, 1999) Vol. 12, No. 3, pp. 187-192.
ISSN: 0893-5785.
DT Article
LA English
SL English
AB The microphthalmia-associated transcription factor (MITF) locus has been mapped to human chromosome 3p12-p14.1, and encodes a basic helix-loop-helix zipper (***bHLH*** -ZIP) protein homologous to a number of transcription factors. Numerous mutations at the mouse microphthalmia (mi) locus have been described, and all have reduced or absent pigmentation of the eyes, ears, and/or pelage, with some genotypes exhibiting small or absent eyes and osteopetrosis. The mivit/vit mutation at the mouse mi locus produces a postnatal depigmentation that resembles human vitiligo. The mice homozygous for this mi allele show a progressive loss of cutaneous, ***hair*** and ocular pigmentation with age. Vitiligo, an acquired depigmentary disorder, is characterized by patchy depigmentation of skin that generally begins around puberty and tends to become more progressive over time. There is suggestive evidence that human vitiligo may be inherited; however, the mode of inheritance is still debated and the pathogenesis is not clearly delineated. The human disorder osteopetrosis is characterized by a generalized net accumulation of skeletal mass and results from reduced osteoclast function in the bone. This is an inherited disorder and has been associated with mi in a mutant mouse. Therefore, the possible involvement of the MITF locus in the pathogenesis of either familial vitiligo or osteopetrosis was investigated. Linkage analysis was performed using microsatellite polymorphic markers D3S2465, D3S1261, and D3S1766 on genomic DNA from 26 families with vitiligo/osteopetrosis. D3S1261 is physically located at or near the MITF locus, while D3S2465 and D3S1766 are flanking the locus at about 17.5 cM genetic distance each side. Evidence from LOD score analysis surprisingly indicated that none of the families with vitiligo or osteopetrosis are linked to these short tandem repeat polymorphisms (STRPs). Thus, the human homolog (MITF) of the mouse mi gene, a good candidate gene at the phenotypic level, may not be involved in the pathogenesis of familial human vitiligo or osteopetrosis.

L29 ANSWER 9 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:63409 BIOSIS
DN PREV200000063409
TI HRT1, HRT2, and HRT3: A new subclass of ***bHLH*** transcription factors marking specific cardiac, somitic, and pharyngeal arch segments.
AU Nakagawa, Osamu; Nakagawa, Masayo; Richardson, James A.; Olson, Eric N.;
Srivastava, Deepak (1)
CS (1) Department of Molecular Biology, Department of Pediatrics, The University of Texas Southwestern Medical Center at Dallas, 6000 Harry Hines Boulevard, Dallas, TX USA
SO Developmental Biology, (Dec. 1, 1999) Vol. 216, No. 1, pp. 72-84.
ISSN: 0012-1606.
DT Article
LA English
SL English
AB Members of the Hairy/Enhancer of Split family of basic helix-loop-helix (***bHLH***) transcription factors are regulated by the Notch signaling pathway in vertebrate and Drosophila embryos and control cell fates and establishment of sharp boundaries of gene expression. Here, we describe a

new subclass of ***bHLH*** proteins, HRT1 (Hairy-related transcription factor 1), HRT2, and HRT3, that share high homology with the Hairy family of proteins yet have characteristics that are distinct from those of Hairy and other ***bHLH*** proteins. Each HRT gene was expressed in distinct cell types within numerous organs, particularly in those patterned along the anterior-posterior axis. HRT1 and HRT2 were expressed in atrial and ventricular precursors, respectively, and were also expressed in the cardiac outflow tract and aortic arch arteries. HRT1 and HRT2 transcripts were also detected in precursors of the pharyngeal arches and subsequently in the pharyngeal clefts. Within somitic precursors, HRT1 and HRT3 exhibited dynamic expression in the presomitic mesoderm, mirroring the expression of other components of Notch-Delta signaling pathways. The HRT genes were expressed in other sites of epithelial-mesenchymal interactions, including the developing kidneys, brain, limb buds, and vasculature. The unique and complementary expression patterns of this novel subfamily of ***bHLH*** proteins suggest a previously unrecognized role for ***Hair*** -related pathways in segmental patterning of the heart and pharyngeal arches, among other organs.

L29 ANSWER 10 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
8
AN 1999:37290 BIOSIS
DN PREV199900037290
TI Targeting the microphthalmia basic helix-loop-helix-leucine zipper transcription factor to a subset of E-box elements in vitro and in vivo.
AU Aksan, I.; Goding, C. R. (1)
CS (1) Eukaryotic Transcription Lab., Marie Curie Res. Inst., The Chart, Oxted, Surrey RH8 0TL UK
SO Molecular and Cellular Biology, (Dec., 1998) Vol. 18, No. 12, pp. 6930-6938.
ISSN: 0270-7306.
DT Article
LA English
AB The development of melanocytes, which are pigment-producing cells responsible for skin, ***hair*** , and eye color, is absolutely dependent on the action of the microphthalmia basic helix-loop-helix-leucine zipper (***bHLH*** -LZ) transcription factor (Mi); mice lacking a functional Mi protein are entirely devoid of pigment cells. Mi has been shown to activate transcription of the tyrosinase, TRP-1, TRP-2, and QNR-71 genes through specific E-box elements, most notably the highly conserved M box. We investigated the mechanism which enables Mi to be recruited specifically to a restricted subset of E boxes in target promoters while being prevented from binding E-box elements in other promoters. We show both in vitro and in vivo that the presence of a T residue flanking a CATGTG E box is an essential determinant of the ability of Mi to bind DNA, and we successfully predict that the CATGTG E box from the P gene would not bind Mi. In contrast, no specific requirement for the sequences flanking a CACGTG E box was observed, and no binding to an atypical E box in the c-Kit promoter was detected. The relevance of these observations to the control of melanocyte-specific gene expression was highlighted by the fact that the E-box elements located in the tyrosinase, TRP-1, TRP-2, and QNR-71 promoters without exception possess a 5' flanking T residue which is entirely conserved between species as diverse as man and turtle. The ability of Mi to discriminate between different E-box motifs provides a mechanism to restrict the repertoire of genes which are likely to be regulated by Mi and provides insight into the ability of ***bHLH*** -LZ transcription factors to achieve the specificity required for the precise coordination of transcription during development.

L29 ANSWER 11 OF 12 MEDLINE
AN 96072365 MEDLINE
DN 96072365 PubMed ID: 8578601
TI Insight into the microphthalmia gene.
AU Moore K J
SO TRENDS IN GENETICS, (1995 Nov) 11 (11) 442-8. Ref: 41
Journal code: WEK; 8507085. ISSN: 0168-9525.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199603
ED Entered STN: 19960321
Last Updated on STN: 19960321
Entered Medline: 19960308
AB The murine microphthalmia gene (mi) is one of the last multi-allelic, classic coat-colour genes to be cloned in the mouse and, similar to many of these genes, encodes an exciting molecule that is is involved in multiple developmental processes. The existence of the numerous alleles has allowed the molecular dissection of the function of the MI ***bHLH*** -Zip transcription factor in vivo and offers a unique opportunity to understand the function of a multimeric transcription factor throughout development and in many tissues. It is also the gene mutated in some patients with the human deafness syndrome, Waardenburg's syndrome type II, and hence helps to understand this syndrome.

L29 ANSWER 12 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
9
AN 1995:64590 BIOSIS
DN PREV199598078890
TI Hairy function as a DNA-binding helix-loop-helix repressor of Drosophila sensory organ formation.
AU Ohsako, Shunji; Hyer, Jeanette; Panganiban, Grace; Oliver, Ian; Caudy, Michael (1)
CS (1) Dep. Cell Biol. Anatomy, Cornell Univ. Med. Coll., New York, NY 10021 USA
SO Genes & Development, (1994) Vol. 8, No. 22, pp. 2743-2755.
ISSN: 0890-9369.
DT Article
LA English
AB Sensory organ formation in Drosophila is activated by proneural genes that encode basic-helix-loop-helix (***bHLH***) transcription factors. These genes are antagonized by hairy and other proline- ***bHLH*** proteins. hairy has not been shown to bind to DNA and has been proposed to form inactive heterodimers with proneural activator proteins. Here, we show that hairy does bind to DNA and has novel DNA-binding activity: hairy prefers a noncanonical site, CACGCG, although it also binds to related sites. Mutation of a single CACGCG site in the achaete (ac) proneural gene blocks hairy-mediated repression of ac transcription in cultured Drosophila cells. Moreover, the same CACGCG mutation in an ac minigene transformed into Drosophila creates ectopic sensory ***hair*** organs like those seen in hairy mutants. Together these results indicate that hairy represses sensory organ formation by directly repressing transcription of the ac proneural gene.

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(FILE 'HOME' ENTERED AT 14:52:46 ON 29 MAY 2002)

FILE 'BIOSIS, MEDLINE, EMBASE' ENTERED AT 14:53:04 ON 29 MAY 2002
L1 7689 S HAIR? (3A) GROW?
L2 413 S L1 AND REVIEW
L3 237 S L2 AND PY>1995
L4 196 DUP REM L3 (41 DUPLICATES REMOVED)
L5 1173 S L1 AND (INNER EAR OR EYEBROW? OR EYELASH? OR SCALP?)
L6 0 S L1 AND INNER EAR AND EYEBROW? AND EYELASH? AND SCALP?
L7 21 S L1 AND EYEBROW? AND EYELASH? AND SCALP?
L8 11 DUP REM L7 (10 DUPLICATES REMOVED)
L9 420 S L1 AND BALD?
L10 32 S L9 AND BEARD
L11 16 DUP REM L10 (16 DUPLICATES REMOVED)
L12 31 S L1 AND INNER EAR
L13 2 S L12 AND REVIEW
L14 2 DUP REM L13 (0 DUPLICATES REMOVED)
L15 23 S L1 AND BRON?
L16 15 DUP REM L15 (8 DUPLICATES REMOVED)
L17 0 S L1 AND INNER EAR AND SCALP
L18 0 S L1 AND MATH1
L19 0 S L1 AND MATH
L20 0 S L1 AND HATH1
L21 0 S L1 AND HATH
L22 0 S L1 AND ATON? ASSOCIAT?
L23 1 S L1 AND ATO
L24 0 S L1 AND ATONAL
L25 6 S HATH1
L26 3 DUP REM L25 (3 DUPLICATES REMOVED)
L27 0 S BHLH AND L1
L28 27 S BHLH AND HAIR
L29 12 DUP REM L28 (15 DUPLICATES REMOVED)

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---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		202.50	202.71

STN INTERNATIONAL LOGOFF AT 15:54:54 ON 29 MAY 2002